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# ENUMERATION

OF

# ALL THE PLANTS KNOWN

FROM

# CHINA PROPER, FORMOSA, HAINAN, THE COREA, THE LUCHU ARCHIPELAGO,

AND

# THE ISLAND OF HONGKONG;

TOGETHER WITH THEIR

## DISTRIBUTION AND SYNONYMY.

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## 1. RANUNCULACEÆ.

1. **Clematis acerifolia,** *Maxim. Fl. As. Or. Fragm.* p. 2; *Kuntze, Monogr. Gatt. Clem.* p. 142.

CHIHLI: Pohuashan (*Bretschneider* !). Herb. Kew.

2. **Clematis æthusæfolia,** *Turcz. in Bull. Mosc.* v. p. 181; *Maxim. in Mél. Biol.* ix. p. 586; *Franchet, Pl. David.* p. 12.

Clematis nutans, *Royle,* δ. æthusifolia, *Kuntze, Monogr. Gatt. Clem.* p. 129.

CHIHLI: near Peking (*Tatarinow*! *Kirilow*! *Bushell*! *Williams*!); KANSUH (*Przewalski* ex *Maximowicz*). Herb. Kew.

Mandshuria.

3. **Clematis alpina,** *Mill. Dict.* ed. viii. n. 9; *DC. Prodr.* i. p. 10; *Franchet, Pl. David.* p. 14.

Atragene alpina, *Linn.*; *Maxim. in Mél. Biol.* ix. p. 603.

CHIHLI: Pohuashan (*Kirilow*! *Bretschneider*!); Jehol (*David* ex *Franchet*). Herb. Kew.

Europe; Siberia.

4. **Clematis angustifolia,** *Jacq. Enum.* p. 310, *Collect.* i. p. 137, et *Ic. Pl. Rar.* i. t. 104; *DC. Prodr.* i. p. 7; *Maxim. in Mél. Biol.* ix. p. 594, et *Fl. As. Or. Fragm.* p. 2; *Debeaux, Fl. Tché-fou*, p. 22 (var. *tchefouensis*); *Franchet, Pl. David.* p. 14.

Clematis recta, *Linn.*, η. angustifolia, *Kuntze, Monogr. Gatt. Clem.* p. 112.

CHIHLI: Peking (*Bushell*! *Hancock*!); SHINGKING: Talienhwan (*Swinhoe*!); Chienshan (*Ross*!); SHANTUNG (*Maingay*! *Hancock*!). Mus. Brit.; Herb. Kew.

Dahuria, Mongolia, and Mandshuria.

5. **Clematis apiifolia,** *DC. Syst.* i. p. 149, et *Prodr.* i. p. 6; *Maxim. in Mél. Biol.* ix. p. 593; *Benth. Fl. Hongk.* p. 7; *Hook. et Arn. Bot. Beech. Voy.* p. 528; *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 2.

Clematis virginiana, *Lour. Fl. Cochinch.* p. 345, *ex Maxim. l. c.* p. 594 (ubi sphalmate *virginica*).

FOKIEN: near Amoy (*Fortune*, A. 86!); COREAN ARCHIPELAGO (*Oldham*, 6!); LUCHU ARCHIPELAGO (*Beechey*!). Mus. Brit.; Herb. Kew.

Japan.

6. **Clematis Benthamiana,** *Hemsl.*

Clematis terniflora, *Benth. Fl. Hongk.* p. 7 (sphalmate *C. ternifolia*), *non DC.*; *F. B. Forbes in Journ. Bot.* 1884, p. 265; *Maxim. in Mél. Biol.* ix. p. 596, pro parte.

CHEKIANG: Ningpo (*hb. Forbes*!); CHUSAN ARCHIPELAGO: Pootoo (*Carles, hb. Forbes*!); FOKIEN: Amoy (*Fortune*, A. 89!). Mus. Brit.; Herb. Kew.

In order to terminate the confusion in which the names *terniflora*, *ternifolia*, and *tenuiflora* are involved in this genus, a new one is given to this species. The original *terniflora* proves to be a compound of *C. chinensis*, Retz., and *C. recta*, Linn.

7. **Clematis brachyura,** *Maxim. in Mél. Biol.* ix. p. 598.

Clematis paniculata, *Thunb.*, forma? pauciflora, *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 1.

COREA (*Carles*!); COREAN ARCHIPELAGO: Long Reach (*Oldham*, 7!). Herb. Kew.

8. **Clematis brevicaudata,** *DC. Syst.* i. p. 138, et *Prodr.* i. p. 3; *Maxim. in Mél. Biol.* ix. p. 592; *Franchet, Pl. David.* p. 14.

CHIHLI: Peking (*Tatarinow*!), between Peking and Jehol (*Staunton*!); Western Hills (*Bushell*! *Bretschneider*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*); COREA (*Carles*!). Mus. Brit.; Herb. Kew.

Mongolia, Mandshuria.

9. **Clematis cæsariata,** *Hance in Journ. Bot.* 1870, p. 71; *Maxim. in Mél. Biol.* ix. p. 586.

FOKIEN (*de Grijs*, 6670!). Herb. Kew.

Hance quotes the number 6700; still there is no doubt that the Kew plant bearing the number 6670 in Hance's handwriting is this species.

10. **Clematis chinensis,** *Retz. Obs.* ii. p. 18, t. 2; *DC. Prodr.* i. p. 3; *F. B. Forbes in Journ. Bot.* 1884, pp. 262 et 265; *Maxim. in Mél. Biol.* ix. p. 596, quoad spec. Fortune 94.

Clematis sinensis, *Lour. ex DC. Syst.* i. p. 137.

Clematis minor, *DC. Syst.* i. p. 136, *an Lour. Fl. Coch.* p. 345? *F. B. Forbes, Journ. Bot.* 1884, p. 263.

Clematis terniflora, *DC.*, quoad spec. *C. Flammulæ* var. in Herb. Linn.

CHINA: without locality (*Bladh*, spec. typ. in Mus. Brit.!; *Baird*! *Dorwand*!); FOKIEN: Amoy (*Fortune*, 94! *Hance*, 1476!); FORMOSA (*Swinhoe*!). Mus. Brit.; Herb. Kew.

The plant alluded to by Bentham (Fl. Hongk. p. 7) under the name *C. ternifolia*, DC. (a slip of the pen for *C. terniflora*, DC.), is a distinct species, *C. Benthamiana*, Hemsl.

11. **Clematis crassifolia,** *Benth. Fl. Hongk.* p. 7; *Kuntze, Monogr. Gatt. Clem.* p. 152.

HONGKONG: in a ravine on Victoria Peak (*Wilford*, 106!). Herb. Kew.

12. **Clematis grata,** *Wall. Pl. As. Rar.* i. t. 98; *Hook. f. Fl. Brit. Ind.* i. p. 3; *Maxim. in Mél. Biol.* ix. p. 592.

SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*); FORMOSA: north-east side (*Wilford*, 502!); without locality (*Oldham*, 2!). Mus. Brit.; Herb. Kew.

Afghanistan, eastward through the Himalayas; also in Tropical Africa.

13. **Clematis Hancockiana,** *Maxim. Fl. As. Or. Fragm.* p. 1.
CHEKIANG: hills west of Ningpo (*Hancock*!). Herb. Kew.

14. **Clematis heracleæfolia,** *DC. Syst.* i. p. 138; *F. B. Forbes in Journ. Bot.* 1884, p. 263; *Kuntze, Monogr. Gatt. Clem.* p. 182.

Clematis tubulosa, *Turcz. in Bull. Mosc.* 1837, x. p. 148; *Lindl. in Journ. Hort. Soc. Lond.* iii. p. 147, fig. 17; *Maxim. in Mél. Biol.* ix. p. 589; *Hance in Journ. Linn. Soc. Lond.* xiii. p. 73; *Dcne. in Nouv. Arch. Mus.* 2me sér. iv. p. 204, t. 9; *Franchet, Pl. David.* p. 13.

Clematis Hookeri, *Decne. Nouv. Arch. Mus.* 2me sér. iv. p. 206, t. 11.

Clematis tubulosa, var. Hookeri, *Hook. f. Bot. Mag.* t. 6801.

CHIHLI: between Peking and Jehol (*Staunton*, spec. typ. *C. heracleæfoliæ* in Mus. Brit.!); mountains east of Peking (*Bretschneider* in hb. Forbes); SHANTUNG (*Maingay*). Mus. Brit.; Herb. Kew.

Var. **Davidiana,** *Franchet, Pl. David.* p. 13 (var. *C. tubulosæ*); *Verlot in Revue Horticole*, 1867, p. 9, cum ic. xylogr.; *Dcne. in Nouv. Arch. Mus.* 2me sér. iv. p. 205, t. 10 (species).

Clematis tubulosa, *Hook. Bot. Mag.* t. 4269.

CHIHLI: Peking district (*Tatarinow*! *Moellendorff*! *Bretschneider*! *Bushell*!); COREA (*Carles*!). Herb. Kew.

Decaisne (*l. c.*) defines six species of the group to which this belongs, founded on forms which we should follow Maximowicz in regarding as varieties of *C. heracleæfolia*, DC. The only one easily separated from the others is *C. Davidiana*, which has larger flowers clustered in the axils of the upper leaves instead of a distinct terminal inflorescence. There are both wild and cultivated specimens exhibiting these marked characteristics; but as the forms with distinct terminal inflorescence and smaller flowers are collected with it, and have been regarded by collectors as the same species, it is possible that *C. Davidiana* is the male of the fully diœcious condition of the species. Maximowicz also reduces the comparatively slender small-flowered *C. stans*, Sieb. et Zucc., to this species; and Sir Joseph Hooker (Bot. Mag. t. 6810), on figuring *C. stans*, Sieb. et Zucc., accepts this limitation of the species, while defining five principal types from China and Japan. Kuntze's classification (*loc. sup. cit.*) of the forms differs slightly from Hooker's.

15. **Clematis Kirilowi,** *Maxim. in Mél. Biol.* ix. p. 583.

Clematis Massoniana? *Maxim. Ind. Fl. Pekin. in Prim. Fl. Amur.* p. 468, *non DC.*

CHIHLI: near Peking (*Kirilow* ex *Maximowicz*).

16. **Clematis lanuginosa,** *Lindl. in Paxt. Fl. Gard.* iii. p. 107, t. 94; *Flore des Serres,* tt. 811 et 1176; *Maxim. in Mél. Biol.* ix. p. 600, et *Fl. As. Or. Fragm.* p. 2.

C. florida, β. lanuginosa, *Kuntze, Monogr. Gatt. Clem.* p. 149.

CHEKIANG: on hill-sides, Ningpo (*Fortune*! *Hancock*!). Mus. Brit.; Herb. Kew.

17. **Clematis leptomera,** *Hance in Journ. Bot.* 1880, p. 257.

KWANGSI: Wuchaufu (*Mesny* ex *Hance*).

Kuntze (Monogr. Gatt. Clem. p. 140) treats this and *C. Stronachii*, Hance, as varieties of *C. cadmia*, Ham., syn. *C. bracteata*, Kurz.

18. **Clematis longiloba,** *DC. Syst.* i. p. 136, et *Prodr.* i. p. 3.

CHINA (*Staunton* ex *DC.*).

We have not seen the type of this species, the flowers of which are not described; but it is probably *C. paniculata*, with which the author compares it.

19. **Clematis macropetala,** *Ledeb. Ic. Pl. Fl. Ross.* t. 11; *Hance in Journ. Bot.* 1875, p. 130; *Franchet, Pl. David.* p. 14.

Atragene macropetala, *Ledeb. Fl. Alt.* ii. p. 376; *Maxim. in Mél. Biol.* ix. p. 603.

CHIHLI: near Peking (*Kirilow* ex *Maximowicz*), western mountains near Miaoar (*Tatarinow*!), Pohuashan (*Bretschneider*!). Herb. Kew.

Dahuria, Mongolia, and Mandshuria.

20. **Clematis Meyeniana,** *Walp. in Nov. Act. Nat. Cur.* xix., *Suppl.* i. p. 297, et *Repert.* v. p. 3; *Benth. Fl. Hongk.* p. 6; *Maxim. in Mél. Biol.* ix. p. 597.

Clematis oreophila, *Hance in Walp. Ann.* ii. p. 3.

C. hedysarifolia, *DC.*, varietates *a*, β, et δ, *Kuntze, Monogr. Gatt. Clem.* p. 152.

CHEKIANG: Shaoshing (*Savatier* ex *Franchet MSS*); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Fortune*, 14 A!, *Swinhoe*!); FORMOSA: Tamsu (*Oldham*, 1!); HONGKONG (*Champion*! *Ur-*

*quhart*! *Hance*! *Wright*!); KWANGTUNG: islands near Macao (*Vachell*!); LUCHU (*Wright*!). Mus. Brit.; Herb. Kew.

This species, as here limited, is very variable in foliage; but the extreme forms in the Kew Herbarium named by Kuntze respectively *C. oreophila*, Hance, and *C. Meyeniana*, Walp., are connected by intermediate ones of every degree.

21. **Clematis nannophylla,** *Maxim. in Mél. Biol.* ix. p. 707.

KANSUH: south of the Hoangho (*Przewalski & Piasezki* ex *Maximowicz*).

22. **Clematis orientalis,** *Linn. Sp. Pl.* ed. 1, p. 543; *DC. Prodr.* i. p. 3; *Maxim. in Mél. Biol.* ix. p. 583; *Franchet, Pl. David.* p. 12; *Hance in Journ. Bot.* 1885, p. 321.

Var. **intricata,** *Maxim. l. c.* (cum synon.); *Bunge, Pl. China Bor.* p. 1 (species).

CHIHLI: Peking (*Bretschneider*! *Bushell*!); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz MSS.*), Hami (*Mesny* ex *Hance*). Mus. Brit.; Herb. Kew.

Persia, through Northern India to Mandshuria.

23. **Clematis paniculata,** *Thunb. in Trans. Linn. Soc.* ii. p. 337; *DC. Prodr.* i. p. 3; *Maxim. in Mél. Biol.* ix. p. 595; *Franchet, Pl. David.* p. 12.

SHINGKING: Chianshan (*Ross*!); KIANGSU (*Poli* ex *Franchet MSS.*); CHEKIANG: Meichi (*Poli* ex *Franchet*); KIANGSI: Kiukiang (*David*, 882, ex *Franchet*); COREA (*Wykeham Perry*!). Mus. Brit.; Herb. Kew.

Japan.

24. **Clematis parviloba,** *Gardn. et Champ. in Hook. Kew Journ. Bot.* i. 1841, p. 241; *Benth. Fl. Hongk.* p. 6; *Maxim. in Mél. Biol.* ix. p. 597.

HONGKONG (*Champion*! *Wright*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

25. **Clematis patens,** *Morr. et Dcne. in Bull. Acad. Brux.* iii. 1836, p. 173; *Maxim. in Mél. Biol.* ix. p. 599; *Hance in Journ. Bot.* 1880, p. 257.

Clematis cærulea, *Lindl. Bot. Reg.* t. 1955.

HUPEH: Ichang (*Watters* ex *Hance*).

The only wild specimens we have seen are from Japan; and the cultivated ones at Kew are of the same origin.

26. **Clematis pinnata,** *Maxim. in Mél. Biol.* ix. p. 591.

CHIHLI: Peking (*Bretschneider*!), mountains westward of Peking (*Tatarinow* ex *Maximowicz*). Herb. Kew.

27. **Clematis recta,** *Linn. Sp. Pl.* ed. 1, i. p. 554.

Var. **mandshurica,** *Maxim. in Mél. Biol.* ix. p. 594; *F. B. Forbes in Journ. Bot.* 1884, p. 264.

Clematis mandshurica, *Rupr. Pl. Maack. in Bull. Acad. Sc. Pétersb.* xv. p. 514.

Clematis terniflora, *DC. Syst.* i. p. 137, *et* C. tenuiflora (sphalmate), *DC. Prodr.* i. p. 3, excl. syn. *C. Flammulæ,* var.

SHINGKING (*Ross*!); KIANGSU: Chinkiang (*Maries*!), Fengwangshan near Shanghai (*Martin*! in hb. Forbes); Chekiang (*Staunton*!). Mus. Brit.; Herb. Kew.

Typical *recta* has a wide range in Europe.

28. **Clematis Stronachii,** *Hance in Journ. Bot.* 1878, p. 103, et 1885, p. 321.

KIANGSU: Chinkiang (*Stronach* ex *Hance*); KWANGTUNG: Pakong (*B. C. Henry* ex *Hance*).

In Herb. Forbes is a specimen from near Meichi, Chekiang, which agrees with Hance's description of *C. Stronachii* in most particulars; yet we dare not refer it to that species unconditionally. If not the same species, it is very closely allied to it.

29. **Clematis Tatarinowii,** *Maxim. in Mél. Biol.* ix. p. 590.

CHIHLI: near Peking (*Tatarinow* ex *Maximowicz*).

There is a specimen in the Kew Herbarium, collected by Tatarinow, agreeing with the description of this, except that the sepals are not connivent.

30. **Clematis uncinata,** *Champ. in Hook. Kew Journ. Bot.* iii. p. 255; *Benth. Fl. Hongk.* p. 6; *Maxim. in Mél. Biol.* ix. p. 597.

KWANGTUNG: Lofaushan (*Ford*!); Lienchau (*Lamont*!); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

31. **Clematis urophylla,** *Franchet in Bull. Soc. Linn. Par.* 1884, p. 433.

KWEICHAU (*Perny* ex *Franchet*).

[*C. viticella,* Linn., var. *flore pleno,* Hook. et Arn. Bot. Beech. Voy. p. 166, we have not seen; but it is not likely to belong to the species to which it is referred.]

1. **Naravelia zeylanica,** *DC. Syst.* i. p. 167, et *Prodr.* i. p. 10.
Naravelia pilulifera, *Hance in Journ. Bot.* 1868, p. 111.
Clematis zeylanica, *Poir.*; *Kuntze, Monogr. Gatt. Clem.* p. 121.
Kwangtung (*Hance & Sampson!*). Herb. Kew.

The Chinese specimen is very distinct in the shape of its petals from the ordinary form; but there is a specimen in the Kew Herbarium from Gowhatty, in India, which is quite like it; and there is every gradation between these very slender knob-headed petals and linear ones.

Widely spread in Tropical Asia.

1. **Thalictrum alpinum,** *Linn. Sp. Pl.* ed. 1, p. 545; *DC. Prodr.* i. p. 12; *Franchet in Bull. Soc. Bot. France*, xxxii. p. 4.

Yunnan: mountains near Tali (*Delavay* ex *Franchet*).

Alpine and Arctic regions all round the northern hemisphere.

2. **Thalictrum fœniculaceum,** *Bunge, Enum. Pl. Ch. Bor.* p. 2; *Walp. Rep.* i. p. 13; *Lecoyer in Bull. Soc. Bot. Belg.* xxiv. p. 222.

Chihli: near Peking (*Bunge! Tatarinow! Bretschneider!*); Kansuh: south of the Hoangho, and on the Tsunglin range (*Piasezki* ex *Maximowicz MSS.*). Mus. Brit.; Herb. Kew.

3. **Thalictrum Fortunei,** *S. Moore in Journ. Bot.* 1878, p. 130; *Hance in Journ. Bot.* 1883, p. 295; *Lecoyer in Bull. Soc. Bot. Belg.* xxiv. p. 162.

Thalictrum baicalense, *Turcz.*, var. ? minor, *Maxim. Fl. As. Or. Fragm.* p. 3.

Anwhei: Wuhu (*Bullock* ex *Hance*); Chekiang: Ningpo (*Hancock!*), without locality (*Fortune* 28); Kiangsi: Kiukiang (*Maries!*). Mus. Brit.; Herb. Kew.

4. **Thalictrum majus,** *Jacq. Fl. Austr.* t. 420 (sensu *Regel, Gattung Thalictrum*, p. 34), ex *Franchet, Pl. David.* p. 15.

Chihli: Jehol and near Peking (*David*, 600, 2054).

This is united, as a variety, with *T. minus* in Hooker's 'Flora of British India.'

5. **Thalictrum minus,** *Linn. Sp. Pl.* ed. 1, p. 546; *DC. Prodr.* i. p. 13; *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 3, et *Prol. Fl. Jap.* p. 191 (var. *hypoleucum*); *Debeaux, Fl. Tchef.* p. 23.

Thalictrum mucronatum, *Ledeb.? Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 468.

CHIHLI: near Peking (*Tatarinow! Bushell! Bretschneider!*); SHINGKING: Chienshan (*Ross!*); SHANTUNG: Chefoo (ex *Debeaux*); KANSUH: south of Hoangho (*Piasezki* ex *Maximowicz MSS.*); COREA (*Carles!*); COREAN ARCHIPELAGO (*Oldham*, 10!). Herb. Kew.

Europe, North Asia, and North and South Africa.

6. **Thalictrum petaloideum,** *Linn. Sp. Pl.* ed. 2, p. 771; *DC. Prodr.* i. p. 12; *Franchet, Pl. David.* p. 17; *Lecoyer in Bull. Soc. Bot. Belg.* xxiv. p. 165.

CHIHLI: Peking (*Tatarinow!*); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz MSS.*); COREA: Port Chusan (*Wilford!*). Mus. Brit.; Herb. Kew.

Siberia.

7. **Thalictrum Przewalskii,** *Maxim. in Mél. Biol.* ix. p. 707; *Lecoyer in Bull. Soc. Bot. Belg.* xxiv. p. 157, t. 3. fig. 9.

KANSUH (*Przewalski* ex *Maximowicz*).

8. **Thalictrum simplex,** *Linn. Mant.* p. 78; *DC. Prodr.* i. p. 15; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 468.

CHIHLI: Peking (*Bretschneider!*); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz MSS.*). Herb. Kew.

Northern Europe, Siberia.

[*Thalictrum sinense*, Lour. Fl. Cochinch. p. 346; DC. Prodr. i. p. 16, is an altogether doubtful plant which De Candolle questions belonging to the Order.]

9. **Thalictrum tenue,** *Franchet, Pl. David.* p. 16, t. 7; *Lecoyer in Bull. Soc. Bot. Belg.* xxiv. p. 175.

CHIHLI: Sanyu (*David*, 2343, ex *Franchet*); near Peking (*Bushell!*). Herb. Kew.

10. **Thalictrum squarrosum,** *Steph. in Willd. Sp. Pl.* ii. p. 1299; *Lecoyer in Bull. Soc. Bot. Belg.* xxiv. pp. 198 et 318.

Thalictrum trigynum, *Fisch. in DC. Prodr.* i. p. 14; *Franchet, Pl. David.* p. 16.

CHIHLI: Jehol (*David*, 2054, ex *Franchet*).

Siberia, Mongolia, and Dahuria.

11. **Thalictrum**, sp.

Corean Archipelago: Green Island (*Oldham*, 12!). Herb. Kew.

Specimens in young flower; foliage near that of *Thalictrum punduanum*, Wall., from North India.

Lecoyer (Bull. Soc. Bot. Belg. xxiv.) records *T. sparsiflorum*, Turcz., *T. filamentosum*, Maxim., *T. baicalense*, Turcz., *T. actæfolium*, Sieb. et Zucc., and *T. fœtidum*, Linn., from North China and the Corea; but as he gives no precise localities, it is not clear that they have been found within our limits.

1. **Anemone altaica**, *Fisch. in Ledeb. Fl. Alt.* ii. p. 362; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 376.

Shingking: Fungwangchung (*Ross*!); Corea: Laoling (*Webster*!). Herb. Kew.

Altai to Kamtschatka.

2. **Anemone barbulata**, *Turcz. in Bull. Soc. Nat. Mosc.* 1837, vii. p. 149; *Walp. Rep.* i. p. 29; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 468.

North China (*Kirilow* ex *Maximowicz*); Chihli: Peking (*Tatarinow*!). Herb. Kew.

Franchet (Pl. David. p. 18) reduces *A. barbulata*, Turcz., to *A. rivularis*, Ham., an Indian species, and he may be quite right; but we have only seen a specimen, collected by Tatarinow, which bears only one flower.

3. **Anemone cernua**, *Thunb. Fl. Jap.* p. 238; *DC. Prodr.* i. p. 16; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 376.

Shingking: Fungwangshan and elsewhere (*Ross*!); Corea (*Carles*! *Webster*!). Herb. Kew.

Japan.

4. **Anemone chinensis**, *Bunge, Enum. Pl. Chin. Bor.* p. 2; *Walp. Rep.* i. p. 19; *Maxim. Fl. As. Or. Fragm.* p. 3; *Hance in Journ. Bot.* 1875, p. 130, et 1882, p. 2; *Franchet, Pl. David.* p. 17.

Chihli: Peking mountains (*Bunge*! *Bretschneider*! *Bushell*!), Jehol (*David*, 1733!), Pohuashan (*Bretschneider* ex *Hance*); Shantung: Chefoo (*Hancock*!); Shensi (*Piasezki* ex *Maximowicz MSS.*); Kiangsu (*Stronach*!); Kiangsi: Kiukiang (*Shearer*! *Maries*!). Mus. Brit.; Herb. Kew.

5. **Anemone cœlestina**, *Franchet in Bull. Soc. Bot. France*, xxxii. p. 4.

YUNNAN: Heechanmen mountain above Lankong (*Delavay* ex *Franchet*).

6. **Anemone exigua**, *Maxim. in Mél. Biol.* ix. p. 708.

KANSUH (*Przewalski* ex *Maximowicz*).

7. **Anemone flaccida**, *F. Schmidt, Reisen in Amur-Lande*, p. 103; *Franch. et Sav. Fl. Jap.* i. p. 6; *Hance in Journ. Bot.* 1878, p. 8.

KIANGSU: Chinkiang (*Stronach* ex *Hance*); CHEKIANG: near Meichi (*Carles & Forbes*! hb. Forbes).

Amur to Japan.

8. **Anemone Hepatica**, *Linn. Sp. Pl.* ed. 1, p. 538; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 375.

Hepatica triloba, *Chaix*; *DC. Prodr.* i. p. 22.

SHINGKING: Kwandien mountains (*Ross*!); COREA (*Carles*!). Herb. Kew.

Europe, North Asia, and North America.

9. **Anemone japonica**, *Sieb. et Zucc. Fl. Jap.* i. p. 15, t. 5; *Bot. Reg.* 1845, t. 66; *Kurz in Journ. Bot.* 1873, p. 193.

KIANGSU: Shanghai (*Fortune*! *Maingay*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Foochow (*Swinhoe*!); YUNNAN (*Anderson* ex *Kurz*). Mus. Brit.; Herb. Kew.

This species is commonly cultivated in China as well as in Japan, and it is uncertain where it is indigenous and where only naturalized. Maingay remarks, "Apparently only naturalized near Shanghai."

10. **Anemone narcissiflora**, *Linn. Sp. Pl.* ed. 1, p. 542; *DC. Prodr.* i. p. 21; *Maxim. Fl. As. Or. Fragm.* p. 3.

CHIHLI: Siaowutaishan mountain at 10,000 feet (*Hancock* ex *Maximowicz*).

Europe, North Asia, and North America.

11. **Anemone nikoënsis**, *Maxim. in Mél. Biol.* ix. p. 1?

Corea (*Carles*!).

Japan.

12. **Anemone obtusiloba**, *Don, Prodr. Fl. Nep.* p. 194; *Walp. Rep.* i. p. 29; *Franchet in Bull. Soc. Bot. France*, xxxii. p. 4.

Yunnan: Heechanmen mountain above Lankong (*Delavay* ex *Franchet*).

Kashmir to Sikkim.

13. **Anemone polyanthes,** *Don, Prodr. Fl. Nep.* p. 194; *Walp. Rep.* i. p. 30; *Franchet in Bull. Soc. Bot. France,* xxxii. p. 4.

Yunnan: Heechanmen mountain above Lankong (*Delavay* ex *Franchet*).

Kashmir to Sikkim.

14. **Anemone Raddeana,** *Regel, Pl. Radd.* i. p. 16, t. i. figg. 2, 3, *f, g*; *Maxim. in Mél. Biol.* ix. p. 606.

Shingking: various localities (*Ross*!); Corea: Laoling (*Webster*!). Herb. Kew.

Mandshuria; Japan.

15. **Anemone Rossii,** *S. Moore in Journ. Linn. Soc.* xvii. p. 376, t. 16. fig. 1.

Shingking: Fungwangchung (*Ross*!); Corea (*Carles*!): Laoling (*Webster*!). Herb. Kew.

16. **Anemone rupestris,** *Wall.*; *Hook. f. et Thoms. Flora Indica,* i. p. 9; *Hook. f. Fl. Brit. Ind.* i. p. 9; *Franchet in Bull. Soc. Bot. France,* xxxii. p. 4.

Yunnan: Heechanmen mountain above Lankong (*Delavay* ex *Franchet*).

Kashmir to Sikkim.

1. **Adonis cærulea,** *Maxim. in Mél. Biol.* ix. p. 708.

Kansuh (*Przewalski* ex *Maximowicz*).

2. **Adonis vernalis,** *Linn. Sp. Pl.* ed. 1, p. 547; *DC. Prodr.* i. p. 24; *Regel et Herder, Enum. Pl. Seminov.* p. 11.

Adonis apennina, *Linn. Sp. Pl.* ed. 1, p. 548; pro parte ex *Nyman, Consp. Fl. Europ.* p. 4.

Adonis apennina, *Linn.*, var. davurica, *Ledeb.*; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 468; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 376.

Chihli: Peking (ex *Maximowicz*); Shingking: Corean Gate (*Ross*!); Corea (*Carles*!). Herb. Kew.

Central Europe, eastward through Russia and Siberia.

1. **Callianthemum cachemirianum,** *Camb. in Jacq. Voy. Bot.* p. 5, t. 3; *Hook. f. Fl. Brit. Ind.* i. p. 14; *Walp. Rep.* i. p. 33; *Franchet in Bull. Soc. Bot. France,* xxxii. p. 5.

YUNNAN: Koualapo mountains between Tali and Hokin (*Delavay* ex *Franchet*).

Kashmir to Sikkim.

1. **Ranunculus acris,** *Linn. Sp. Pl.* ed. 1, p. 554; *DC. Prodr.* i. p. 39; *Maxim. Fl. As. Or. Fragm.* p. 3; *Franch. et Savat. Fl. Jap.* ii. p. 266; *Franchet, Pl. David.* p. 19.

Ranunculus japonicus, *Thunb. non Langsd. fide Maxim.*

Ranunculus propinquus, *C. A. Mey. in Ledeb. Fl. Altaica,* ii. p. 332.

Ranunculus propinquus, *C. A. Mey.,* var. hirsutus, *A. Gr. in Mem. Am. Acad.* n. s. vi. p. 378.

Ranunculus hirtellus, *Royle?, Hance in Journ. Bot.* 1878, p. 104.

CHIHLI, SHINGKING, SHENSI, KIANGSU, KIANGSI, and COREA. Apparently common in the northern provinces. Mus. Brit.; Herb. Kew.

Europe, North Africa, North Asia.

2. **Ranunculus aquatilis,** *Linn. Sp. Pl.* ed. 1, p. 556; *DC. Prodr.* i. p. 26, var. vel subspecies *Bungei.*

Ranunculus hydrophilus, *Bunge, Enum. Pl. Ch. Bor.* p. 2, *non Gaudich.*; *Franchet, Pl. David.* p. 18.

Ranunculus Bungei, *Steud. Nomencl. Bot.* ed. 2, ii. p. 433.

Ranunculus hydrocharis, *Spenner,* forma Bungei, *Hiern in Journ. Bot.* 1871, p. 100.

CHIHLI: near Peking (*Bunge! Bushell!*), Jehol (*David* ex *Franchet*). Herb. Kew.

There are also specimens from the same region in the Kew Herbarium, collected by Moellendorff, of a slightly different form, in which the leaves are more deeply divided and the segments much narrower. Maximowicz (Ind. Fl. Pek.) includes a second form, which he calls *R. aquatilis, β. brevifolius,* Rossm., and which may be the same. In Herb. Forbes is a fruiting specimen of an apparently somewhat starved state of a different form (*R. trichophyllus,* Chaix ex Maximowicz in litt.) without floating leaves, from a small pond near the Tsau Lake in ANWHEI. The aggregate species is very widely diffused in temperate regions.

3. **Ranunculus auricomus,** *Linn. Sp. Pl.* ed. 1, p. 551; *DC. Prodr.* i. p. 33; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 376.

SHINGKING: Fungwangchung (*Ross!*), Muchi (*Webster!*). Herb. Kew.

Europe, Siberia, and North India.

4. **Ranunculus Cymbalaria,** *Pursh, Fl. Am. Sept.* ii. p. 392; *Hook. f. & Thoms. Flora Indica,* i. p. 31; *Walp. Ann.* iv. p. 18; *Franchet, Pl. David.* p. 20, et *in Bull. Soc. Bot. France,* xxxii.

Ranunculus plantaginifolius, *Murr.*; *Ledeb. Fl. Altaica,* ii. p. 312; *Franchet, l. c.*

Ranunculus salsuginosus, *Pall.*; *DC. Prodr.* i. p. 33.

*α.* **major,** *Hook. f. & Thoms. l. c.* p. 32.

CHIHLI: near Peking (*Bretschneider* !). Herb. Kew.

*β.* **alpinus,** *Hook. f. & Thoms. l. c.*

CHIHLI: near Peking (*Bretschneider* !), Jehol (*David,* 1752 !); YUNNAN: Koualapo mountain near Hokin (*Delavay* ex *Franchet*). Herb. Kew.

North cold temperate regions and southward in America to the Andes.

5. **Ranunculus diffusus,** *DC. Prodr.* i. p. 38; *Hook. f. Fl. Brit. Ind.* i. p. 19.

ANWHEI: Chinkiang and Yangtse (*Maries* !). Herb. Kew.

The Chenab to Bhotan, and the Western Peninsula of India; also Java and Sumatra.

The Chinese specimen quite agrees, so far as it goes, with the form named *subpinnatus* by Wight and Arnott.

6. **Ranunculus japonicus,** *Langsd. ex Fisch. in DC. Prodr.* i. p. 38, *non Thunb., ex Maxim. Fl. As. Or. Fragm.* p. 3.

Ranunculus ternatus, *DC. Syst.* i. p. 242, et *Prodr.* i. p. 31; *Franchet, Pl. David.* p. 19; *Deless. Ic. Pl. Rar.* i. t. 25?

CHIHLI: near Peking (*David,* 469, 2977, ex *Franchet*); LUCHU (*Wright* !). Herb. Kew.

The only specimen from within our limits we have seen that we could refer to this species is Wright's. As stated under *R. pensylvanicus,* some forms of this are scarcely distinguishable from that species. Delessert's figure may represent either species. See the remarks under *R. ternatus.*

Japan.

7. **Ranunculus Moellendorffii,** *Hance in Journ. Bot.* 1879, p. 7.

CHIHLI: Pohuashan (*Moellendorff* ex *Hance*).

8. **Ranunculus pensylvanicus,** *Linn. Suppl. Pl.* p. 272; *DC. Prodr.* i. p. 40; *Hook. f. Fl. Brit. Ind.* i. p. 19.

Ranunculus chinensis, *Bunge, Enum. Pl. Ch. Bor.* p. 3.

Ranunculus fibrosus, *Wall.*; *Hook. f. et Thoms. Flora Indica,* i. p. 37.

Ranunculus cantoniensis, *DC. Prodr.* i. p. 43 ?

Hecatonia pilosa, *Lour. Fl. Cochinch.* p. 371 ?

This very variable species seems to be common in the Eastern Provinces, from Chihli to Kwangtung, and Maximowicz reports it to us from Shensi and Kansuh; it is also in the Kew Herbarium from Szechuen and the Corea. The extreme forms with globose and oblong heads of achenes are very different, but there is every gradation between. A form collected by Hance within the enclosure of a temple in the Pahwan mountains near Canton is hardly distinguishable from *R. japonicus* except in the very short straight beak of the achenes. This species exhibits the same kind and range of variability in North India. Mus. Brit.; Herb. Kew.

Sutlej to the Khasia hills and in the Amur, and in North America.

9. **Ranunculus Polii,** *Franchet*, sp. nov.

"*Radix* fibrosa, fibris validis elongatis; *caulis* e basi ramosus, ramis decumbentibus, sæpe radicantibus; *folia inferiora* tripartita, vel pinnatim ternata, segmentis petiolulatis trifidis, lobis ovatis vel lanceolatis integris vel rarius 2–3-dentatis; *folia superiora* pauca (1–2), sessilia, tripartita; *pedunculi* uniflori, elongati ($2\frac{1}{2}$–4 poll.), graciles, subtiliter striati; *sepala* ovalia, patentia; *petala* lutea, late ovata, calyce triplo longiora; *carpella* juniora in capitulum ovatum digesta, oblonga, hispidula, in stylum elongatum circinatum abeuntia.

"*Planta* gracilis vix palmaris, præter carpella hispida, glaberrima; corollæ diametro circiter 6 lineas."—*Franchet MS.*

Kiangsu: Fengwangshan (*Poli* ex *Franchet*).

In the Kew Herbarium are very young specimens of a *Ranunculus* from Shanghai, collected by Maingay, which may be this species, described by Franchet as having the habit of a very much reduced state of *R. repens.*

10. **Ranunculus pulchellus,** *C. A. Mey. in Ledeb. Fl. Altaica*, ii. p. 333, et *Ic. Pl. Fl. Ross.* t. 111; *Walp. Rep.* i. p. 38; *Franchet in Bull. Soc. Bot. France*, xxxii.

Yunnan: Koualapo mountain near Hokin (*Delavay* ex *Franchet*).

Baical to Altai.

11. **Ranunculus repens,** *Linn. Sp. Pl.* ed. 1, p. 554; *DC. Prodr.* i. p. 38; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 376.

SHINGKING: Chienshan and east of Moukden (*Ross* !); COREA (*Webster* !). Herb. Kew.

Europe, through Siberia to Japan, and in North America.

12. **Ranunculus sceleratus,** *Linn. Sp. Pl.* ed. 1, p. 551; *DC. Prodr.* i. p. 34; *Hance in Journ. Linn. Soc.* xiii. p. 98; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 376; *Franchet, Pl. David.* p. 19, et *in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 197.

Ranunculus holophyllus, *Hance in Ann. Sc. Nat.* série 4, xv. p. 220, et *in Journ. Linn. Soc.* xiii. p. 98; *Walp. Ann.* vii. p. 15?

Ranunculus oryzetorum, *Bunge, Enum. Pl. Ch. Bor.* p. 2?

This species ranges from CHIHLI and SHINGKING to KWANGTUNG, and is apparently a common weed in southern rice-fields. Mus. Brit.; Herb. Kew.

North temperate and subtropical regions.

We have seen no authenticated specimens of *R. oryzetorum,* Bunge, and *R. holophyllus,* Hance; but from the descriptions and from the variability of the Chinese specimens of *R. sceleratus,* we have little doubt that they belong here.

13. **Ranunculus Sieboldii,** *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 5.

KIANGSU: Shanghai (*Maingay* !); CHEKIANG: Ningpo (*Oldham* !); LUCHU ARCHIPELAGO (*Wright* !). Herb. Kew.

We have seen no authenticated specimens of Miquel's species; but the Chinese plant is the only one from the region with peduncles opposite the leaves, and in this, as in other particulars, it agrees with Miquel's description.

14. **Ranunculus ternatus,** *Thunb. Fl. Jap.* p. 241; *Wallstr. Pl. Jap.*, nov. sp. *in Thunb. Diss.* p. 8, cum tab.; *Maxim. Fl. As. Or. Fragm.* p. 3, nec aliorum.

Ranunculus extorris, *Hance in Ann. Sc. Nat.* 5me série, v. p. 204.

Ranunculus Zuccarinii, *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 5.

KIANGSU: Fengwangshan and Shanghai (*Forbes* !); CHEKIANG: Ningpo (*Hancock* !), Shaoshing (*Savatier* ! hb. Forbes), Kiukiang (*Shearer* !); FORMOSA: Tamsui (*Oldham,* 4 !). Herb. Kew.

Japan.

Mr. Maximowicz has recently had an opportunity of examining Thunberg's herbarium, and we are indebted to him for clearing up the confusion between this species and *R. japonicus.* He found only one specimen labelled *R. ternatus,* and that was clearly

the original of Wallström's figure, as well as of Thunberg's description.

15. **Ranunculus yunnanensis**, *Franchet in Bull. Soc. Bot. France*, xxii. p. 5.

YUNNAN: Heechanmen, above Lankong (*Delavay* ex *Franchet*).

16. **Ranunculus**, sp.

SHINGKING: Yoongdien (*Ross*!). Herb. Kew.

An undescribed species, having the habit of *R. auricomus* and subglobose, pubescent achenes; but the material is insufficient to make a satisfactory description.

1. **Caltha palustris**, *Linn. Sp. Pl.* ed. 1, p. 558; *DC. Prodr.* i. p. 44; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 376.

SHINGKING: Yoongdien, Corean Gate (*Ross*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*); COREA (*Carles*!). Herb. Kew.

Temperate Europe, Asia, and North America.

1. **Trollius asiaticus**, *Linn. Sp. Pl.* ed. 1, p. 557; *DC. Prodr.* i. p. 46; *Hance, Journ. Bot.* 1878, p. 104.

Trollius chinensis, *Bunge, Enum. Pl. Ch. Bor.* p. 3; *Walp. Rep.* i. p. 47; *Franchet, Pl. David.* p. 20.

Trollius asiaticus, *Linn.*, var. affinis, *Regel, Gartenfl.* 1863, p. 209, t. 20.

CHIHLI: Siaowutaishan mountain, about 100 miles west of Peking (*Hancock*! *Moellendorff*!); KIANGSU: Shanghai, in gardens (*Fortune*!). Herb. Kew.

Asiatic Russia.

1. **Eranthis stellata**, *Maxim. Prim. Fl. Amur.* p. 22; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 376.

SHINGKING: Fungwangchung (*Ross*!). Herb. Kew.

Amur.

Baker and Moore question the species, though unnecessarily.

1. **Coptis Teeta**, *Wall.? in Trans. Med. & Phys. Soc. Calc.* viii. p. 347; *Griffith, Ic. Pl. Asiat.* iv. t. 660; *Hook. f. Fl. Brit. Ind.* i. p. 23.

KWANGTUNG: East River, Canton (*Ford*!). Herb. Kew.

There are only Griffith's Mishmi specimens in the Kew Herbarium, and these are without either flowers or fruit; and Griffith's

figure represents the carpels as sessile, whilst in the present plant they are distinctly stalked, yet it agrees so well in foliage with the Indian that we think it must be the same species.

1. **Isopyrum adoxoides,** *DC. Syst.* i. p. 324; *Prodr.* i. p. 48; *Hance in Journ. Bot.* 1880, p. 257; *Maxim. in Mél. Biol.* xi. p. 630, et *Fl. As. Or. Fragm.* p. 3.

Isopyrum japonicum, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 73, fide *Maxim.*

KIANGSU: Fengwangshan (*hb. Forbes*!); CHEKIANG: Ningpo (*Hancock* ex *Maximowicz*), hills near Meichi (*Carles & Forbes*! *hb. Forbes*); KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

Japan.

2. **Isopyrum anemonoides,** *Kar. et Kir. Enum. Pl. Songor.* n. 55; *Maxim. in Mél. Biol.* xi. p. 633.

KANSUH: various alpine localities (*Przewalski* ex *Maximowicz*).

North-western India; Siberia.

3. **Isopyrum grandiflorum,** *Fisch. in DC. Prodr.* i. p. 48; *Maxim. in Mél. Biol.* xi. p. 627.

KANSUH: in alpine situations along the river Tetung (*Przewalski* ex *Maximowicz*).

Western Himalaya and Siberia.

4. **Isopyrum Raddeanum,** *Maxim. in Mél. Biol.* xi. p. 639.

Enemion Raddeanum, *Regel, Pl. Radd.* i. p. 61.

SHINGKING: Laoling (*Webster*!). Herb. Kew.

Mandshuria and Japan.

1. **Aquilegia viridiflora,** *Pallas in Act. Petrop.* 1779, p. 260, t. 11, ex *DC. Syst.* i. p. 338.

Aquilegia atropurpurea, *Willd. Enum. Pl. Hort. Berol.* p. 577; *DC. Prodr.* i. p. 50; *Hance in Journ. Bot.* 1875, p. 130.

CHIHLI: Pohuashan (*Bretschneider*! *Hance*, 18557!); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz*). Herb. Kew.

Siberia.

2. **Aquilegia vulgaris,** *Linn. Sp. Pl.* ed. 1, p. 533; var. **oxypetala,** *Franchet, Pl. David.* p. 21.

Aquilegia oxypetala, *Trautv. et Mey. Fl. Ochst.* n. 22.

CHIHLI: Jehol (*David*, 2217 ex *Franchet*), Pohuashan (*Bretschneider*! hb. Forbes, *David*, 1708, ex *Franchet*).

Temperate Europe and Asia.

1. **Delphinium albocæruleum**, *Maxim. in Mél. Biol.* ix. p. 709.
KANSUH (*Przewalski* ex *Maximowicz*).

2. **Delphinium anthriscifolium**, *Hance in Journ. Bot.* 1868, p. 207; *S. Moore in Journ. Bot.* 1878, p. 137; *Franchet in Bull. Soc. Linn. Par.* 1882, p. 329, et *Pl. David.* p. 21.

KIANGSU: near Chinkiang (*Bullock*! hb. Forbes); CHEKIANG: Ningpo (*Everard*!); KIANGSI: Kiukiang (*Shearer*!); SHENSI: southern part (*David* ex *Franchet*); without locality (*Piasezki* ex *Maximowicz*); KWANGTUNG: along the West River (*Sampson*! *Hance*, 10125!), Lamchin (*Chaumont*!). Mus. Brit.; Herb. Kew.

3. **Delphinium Callerii**, *Franchet in Bull. Soc. Linn. Paris*, 1882, p. 329.

KWANGTUNG: Macao (*Callery* ex *Franchet*).

4. **Delphinium cheilanthum**, *Fisch. in DC. Syst.* i. p. 352, et *Prodr.* i. p. 53; *Franchet, Pl. David.* p. 22, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 198.

CHIHLI: Siwan (*David* ex *Franchet*); SHANTUNG: Chefoo (*hb. Forbes*!).

Dahuria.

5. **Delphinium grandiflorum**, *Linn. Sp. Pl.* ed. 1, p. 531; *DC. Prodr.* i. p. 53 (β. chinense, *Fisch.*); *Maxim. Fl. As. Or. Fragm.* p. 4; *Franchet, Pl. David.* p. 22; *Bot. Reg.* t. 472.

Delphinium chinense, *Lodd. Bot. Cab.* i. t. 71.

CHIHLI: near Peking (*Moellendorff*! *Bushell*! *Bretschneider*!); SHINGKING: Peiling (*Webster*!); SHANTUNG: Chefoo (*Hancock* ex *Maximowicz*); SZECHUEN: beyond Shanteantze (*Capt. Gill*). Mus. Brit.; Herb. Kew.

Siberia.

6. **Delphinium Pylzowi**, *Maxim. in Mél. Biol.* ix. p. 709.
KANSUH (*Przewalski* ex *Maximowicz*).

7. **Delphinium Savatieri**, *Franchet in Bull. Soc. Linn. Paris*, 1882, p. 330.

CHEKIANG: Shaoshing (*Savatier* ex *Franchet*).

8. **Delphinium sparsiflorum**, *Maxim. in Mél. Biol.* ix. p. 710.
KANSUH (*Przewalski* ex *Maximowicz*).

1. **Aconitum Anthora,** *Linn. Sp. Pl.* ed. 1, p. 532; *DC. Prodr.* i. p. 56; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 468.

CHIHLI: near Peking (ex *Maximowicz*).

Temperate Europe and Asia.

2. **Aconitum Fischeri,** *Reichb. Monogr. Acon.* t. 22; *Franchet, in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 198 (excl. synon. *Dcne.*).

Aconitum sinense, *Siebold* ex *Zuccarini* fide *Benth. in Hook. Lond. Journ. Bot.* 1847, p. 46 (nomen nudum), *non* A. chinense, *Bot. Mag.* t. 3852.

Aconitum autumnale, *Lindl. in Journ. Hort. Soc. Lond.* ii. p. 77, et *in Paxt. Fl. Gard.* i. p. 187, cum figura.

Aconitum Carmichaeli, *Debeaux, Fl. Tientsin, Addend.* p. 61.

Aconitum sp., *Hemsl. in Journ. Bot.* 1876, p. 206, cum descript.

Aconitum chinense, *Herb. Kew.*; *S. Moore in Journ. Bot.* 1878, p. 137.

SHINGKING: Chienshan (*Ross*!); SHANTUNG: Chefoo (*hb. Forbes*!); CHUSAN (*Fortune*, 35!); KIANGSI: Kiukiang (*Shearer*!); CHEKIANG: Ningpo (*Everard*!). Mus. Brit.; Herb. Kew.

Two species have been confused under the name *sinense* (*chinense*); see the synonymy of *A. Fortunei*, Hemsl.

3. **Aconitum Fortunei,** *Hemsl.*

Aconitum chinense, *Paxt. Mag. Bot.* v. t. 3; *Bot. Mag.* t. 3852; *non* A. sinense, *Sieb.*, *sed* A. sinense, *Lindl. in Paxt. Fl. Gard.* i. p. 187, fig. 116.

Aconitum japonicum, *Decne. in Rev. Hort.* 1851, p. 175, cum ic., non *Thunb.*

CHINA (*Fortune*!). Herb. Kew.

4. **Aconitum gymnandrum,** *Maxim. in Mél. Biol.* ix. p. 711.

KANSUH (*Przewalski* ex *Maximowicz*).

5. **Aconitum Kusnezoffii,** *Reichb. Monogr. Acon.* t. 21; *Franchet, Pl. David.* p. 22.

Aconitum villosum, *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 468, non *Reichb.* ex *Maxim. in litt.*

CHIHLI: near Peking (*Bretschneider*!), Jehol (*David* ex *Franchet*); COREA (*Perry*!). Mus. Brit.; Herb. Kew.

Siberia.

6. **Aconitum Lycoctonum,** *Linn. Sp. Pl.* ed. 1, p. 532; *DC. Prodr.* i. p. 57; *Franchet, Pl. David.* p. 23; *Regel, Pl. Radd.* p. 71 (varietates plures).

Aconitum barbatum, *Patr. in Pers. Syn.* ii. p. 83; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 468 (β. Gmelini).

Aconitum Cynoctonum, *Reichb.*, A. Vulparia, *Reichb.*, et A. Lamarkii, *Reichb. Monogr. Acon.* tt. 64–68.

CHIHLI: near Peking (*Bretschneider*!), Pohuashan (*David*, 2246, 2277, ex *Franchet*); SHINGKING (*Ross*!); KIANGSI: Kiukiang (*hb. Forbes*!). Mus. Brit.; Herb. Kew.

Europe and Temperate Asia.

7. **Aconitum Napellus**, *Linn. Sp. Pl.* ed. 1, p. 532; *DC. Prodr.* i. p. 62.

SHINGKING: Chienshan (*Ross*!).

Temperate and arctic Europe, Asia, and America.

8. **Aconitum ochotense**, *Reichb. Monogr. Acon.* t. 18; *Franchet, Pl. David.* p. 22.

CHIHLI: Siwan, near Peking, and Jehol (*David*, 490, 576, and 2214, ex *Franchet*).

Siberia; Mongolia.

1. **Actæa spicata**, *Linn. Sp. Pl.* ed. 1, p. 504; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 468; *Franchet, Pl. David.* p. 23.

CHIHLI: near Peking (ex *Maximowicz*), Jehol (*David*, 1845, ex *Franchet*).

North temperate and arctic regions.

1. **Cimicifuga davurica**, *Maxim. Prim. Fl. Amur.* p. 28.

Actinospora davurica, *Turcz. in Fisch. et Mey. Ind. Petrop.* 1835, p. 21.

Actæa davurica, *Franchet, Pl. David.* p. 23.

CHIHLI: near Peking (*Bretschneider*! *hb. Forbes*), Jehol (*David*, 2045, ex *Franchet*).

Dahuria; Mongolia.

In the Kew Herbarium is a fruiting specimen of a *Cimicifuga* from Shingking, collected by Ross, which may be from a very vigorous plant of this species, or it may belong to a different species.

1. **Pæonia albiflora**, *Pall. Fl. Ross.* ii. t. 84; *DC. Prodr.* i. p. 66; *Hance in Journ. Bot.* 1880, p. 257, et 1882, p. 257; *Kurz in Journ. Bot.* 1873, p. 193; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 376; *Baker in Gard. Chron.* n. s. xxi. (1884), p. 779; *Franchet, Pl. David.* p. 23; *Bunge, Enum. Pl. Ch. Bor.* p. 3 (β. trichocarpa); *Bot. Mag.* t. 1756.

Pæonia edulis, *Salisb. Parad. Lond.* t. 78; *Bot. Mag.* t. 1768 (var. sinensis).

CHIHLI: Jehol (*David*, 1813, 1850, ex *Franchet*), Siaowutaishan (*Moellendorff*!); SHINGKING: Fooling (*Ross*!), Chienshan (*Ross*!); SHANTUNG (*Fauvel* ex *Franchet*); YUNNAN (*Anderson* ex *Kurz*); KWANGTUNG: Canton (ex *Bot. Mag.*). Mus. Brit.; Herb. Kew.

Siberia.

2. **Pæonia Moutan**, *Sims, Bot. Mag.* t. 1154; *DC. Prodr.* i. p. 65; *Baker in Gard. Chron.* n. s. xxi. (1884), p. 779; *Bot. Mag.* t. 379.

KANSUH: north of the Hoangho (*Piasezki* ex *Maximowicz MSS.*).

Cultivated specimen only in the Kew Herbarium.

3. **Pæonia obovata**, *Maxim. Prim. Fl. Amur.* p. 29; *Baker in Gard. Chron.* n. s. xxi. (1884), p. 779.

Pæonia oreogeton, *S. Moore, in Journ. Linn. Soc.* xvii. p. 376.

SHINKING: Kwandien (*Ross*!). Herb. Kew.

Amur; Sachalin.

## 2. DILLENIACEÆ.

1. **Tetracera sarmentosa**, *Vahl, Symb. Bot.* iii. p. 70; *Willd. Sp. Pl.* ii. p. 1240; *Planch. et Triana in Ann. Sc. Nat.* sér. 4, xvii. p. 20; *Hance in Journ. Bot.* 1869, p. 115, et *in Journ. Linn. Soc.* xiii. p. 99.

Delima sarmentosa, *Linn. Sp. Pl.* ed. 2, p. 736; *DC. Prodr.* i. p. 69; *Benth. Fl. Hongk.* p. 7.

Leontoglossum scabrum, *Hance in Walp. Ann.* ii. p. 18, et iii. p. 812.

Calligonum asperum, *Lour. Fl. Cochinch.* p. 342.

Trachytella aspera, *DC. Syst.* i. p. 410, et *Prodr.* i. p. 70.

Actæa aspera, *Lour. Fl. Cochinch.* p. 405.

Trachytella Actæa, *DC. Syst.* i. p. 410, et *Prodr.* i. p. 70.

SOUTHERN CHINA: common in Kwangtung and Hongkong; and there are many specimens in the herbaria without exact localities. Mus. Brit.; Herb. Kew.

Assam to Singapore and the Malay Archipelago.

## 3. CALYCANTHACEÆ.

1. **Chimonanthus fragrans**, *Lindl. Bot. Reg.* t. 451; *Franch. et Sav. Enum. Pl. Jap.* i. p. 15.

Calycanthus præcox, *Linn. Sp. Pl.* ed. 2, p. 718; *Bot. Mag.* t. 466.

CHIHLI: near Peking (*Bretschneider!*); KIANGSI: Kiukiang (*Shearer!*); SHENSI (*Piasezki* ex *Maximowicz in litt.*). Herb. Kew.

Introduced in Japan according to Japanese authors.

## 4. MAGNOLIACEÆ.

1. **Illicium religiosum**, *Sieb. et Zucc. Fl. Jap.* i. p. 5, t. 1; *Bot. Mag.* t. 3965; *Berge und Schmidt, Off. Gewächs.* iv. t. 30*f.* figs. A–C; *Holmes in Pharmac. Journ.* 1881, p. 1066.

Illicium anisatum, *Linn. Sp. Pl.* ed. 2, p. 664; *DC. Prodr.* i. p. 77; *Franch. et Sav. Enum. Pl. Jap.* i. p. 15; *Bretschn. Early Res.* p. 92.

KWANGTUNG: Macao (*Millett!*), Pakhoi (*Ford!*); without locality (*Livingstone!*). Mus. Brit.; Herb. Kew.

Japan.

2. **Illicium anisatum**, *Lour. Fl. Cochinch.* p. 353; *Berge und Schmidt, Off. Gewächs.* iv. t. 30*f.* figs. M–R (non *Linn. et aliorum*); *Holmes in Pharmac. Journ.* 1881, p. 1066.

KWANGTUNG: west of Canton (*Loureiro*).

All the Chinese and Japanese specimens of *Illicium* that we have seen are referable to one species.

1. **Magnolia conspicua**, *Salisb. Parad. Lond.* t. 38 (1806); *Maxim. in Mél. Biol.* viii. p. 508.

Magnolia Yulan, *Desf. Hist. Arb.* ii. p. 6 (1809); *DC. Prodr.* i. p. 81; *Debeaux, Fl. Shangh.* p. 14; *Bot. Mag.* t. 1621; *Bot. Reg.* t. 1164 (var. Soulangiana).

Yulania conspicua, *Spach, Hist. Veg.* vii. p. 464.

Magnolia precia, *Correa in Vent. Jard. Malm.* n. 24 (absque descriptione).

CHIHLI: near Peking (*Bretschneider! Skatchkoff!*); KIANGSU: Shanghai (*Maingay!*); KIANGSI: Kiukiang (*Maries!*). Mus. Brit.; Herb. Kew.

Japan.

2. **Magnolia obovata**, *Thunb. in Trans. Linn. Soc.* ii. p. 336; *DC. Prodr.* i. p. 81; *Franch. et Sav. Enum. Pl. Jap.* i. p. 16.

Magnolia purpurea, *Curtis, Bot. Mag.* t. 390.

Magnolia discolor, *Vent. Jard. Malm.* t. 24.

Magnolia denudata et M. liliflora, *Lam. Encycl.* iii. p. 675.

Magnolia glauca, *Thunb. Fl. Jap.* p. 237, non *Linn.*

Buergeria obovata, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 79.

Talauma obovata, *Hance in Journ. Bot.* 1882, p. 2, non *Korth.*

Talauma Sieboldi, *Miq. in Ann. Mus. Bot. Lugd. Bat.* ii. p. 257.

Yulania japonica, *Spach, Hist. Veg.* vii. p. 466.

SZECHUEN (*Watters* ex *Hance*); KIANGSU (*Poli* ex *Franchet in litt.*); East coast, without special locality (*Home*!). Mus. Brit.; Herb. Kew.

Franchet and Savatier (*loc. cit.*) state that this exists in Japan under cultivation only.

3. **Magnolia pumila**, *Andr. Bot. Repos.* t. 226; *Bot. Mag.* t. 977; *DC. Prodr.* i. p. 81; *Hance, Advers.* p. 6, non *Spreng. Syst. Veg.* iv. 2. p. 217.

Liriodendron Coco, *Lour. Fl. Cochinch.* p. 347, fide *Hance.*

Magnolia Coco, *DC. Syst.* i. p. 459.

Magnolia Championi, *Benth. Fl. Hongk.* p. 8.

Talauma pumila, *Bl. Fl. Jav. Magnol.* p. 38, t. 12 C.

Liriodendron liliifera, *Linn. Sp. Pl.* ed. 2, p. 755, fide *Blume.*

KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 5!); KWANGTUNG: Macao (ex *Hance*); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

[*Magnolia inodora*, DC. (Syst. i. p. 459; Prodr. i. p. 81), founded on the *Liriodendron liliifera*, Lour. (Fl. Cochinch. p. 346) non Linn., and *Magnolia parviflora*, Bl. (Bijdr. p. 9; Walp. Rep. i. p. 70), are both doubtful plants.]

1. **Michelia Champaca**, *Linn. Sp. Pl.* ed. 1, pl. 536; *DC. Prodr.* i. p. 79; *Hook. f. Fl. Brit. Ind.* i. p. 42.

CHINA: without locality (*Millett*! *Beazeley*!). Herb. Kew.

Nepal and Assam to the Nilgherries and Java.

Perhaps only cultivated in China, in the eastern part at least.

2. **Michelia fuscata**, *Blume, Fl. Jav., Magnol.* p. 8.

Magnolia fuscata, *Andr. Bot. Repos.* t. 229; *Bot. Mag.* t. 1008; *DC. Prodr.* i. 81.

Liriodendron Figo, *Lour. Fl. Cochinch.* p. 347, fide *Hance, Advers.* p. 6.

Magnolia Figo, *DC. Syst.* i. p. 460.

Liriopsis fuscata, *Spach, Hist. Veg.* vii. p. 461.

CHINA: without locality (*Macartney*! *Staunton*!); KIANGSI: Kiukiang (*Shearer*!); KWANGTUNG: Macao (ex *Hance*). Mus. Brit.; Herb. Kew.

1. **Liriodendron Tulipifera**, *Linn.*, var. ? **chinense**, *Hemsl.*

"Arbor pulchra patula" (*Maries*); foliis variabilibus, adultis (*Shearer* lectis) alte lobatis lobis obtusissimis, novis (*Maries* lectis) breviter lobatis lobis acutissimis; "floribus viridibus" (*Maries*), sepalis petalisque vix 9 lineas longis.—Liriodendron sp. nov. ?, *S. Moore in Journ. Bot.* 1875, p. 225.

KIANGSI: Lushan mountains, Kiukiang (*Shearer*! *Maries*!). Herb. Kew.

Possibly this may prove sufficiently distinct from the American form to rank as an independent species; but the leaves furnish no distinctive character, and the flowers appear to differ only in size. We have seen only one, however.

1. **Schizandra chinensis**, *Baill. Hist. Pl.* i. p. 148; *Franch. et Sav. Enum. Pl. Jap.* i. p. 17; *Franchet, Pl. David.* p. 24.

Maximowiczia chinensis, *Rupr. in Maxim. Prim. Fl. Amur.* p. 31, t. 1.

Kadsura chinensis, *Turcz. in Bull. Soc. Nat. Mosc.* no. vii. 1837, p. 149.

Sphærostema japonica, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 80; *A. Gr. in Mem. Am. Acad.* n. s. vi. p. 380.

Schizandra (Sphærostema) japonica, *Hance in Journ. Bot.* 1880, p. 258.

CHIHLI: Jehol (*David*, 1839, ex *Franchet*); SHINGKING (*Ross*, 309!), Muchi (*Webster*!); KIANGSU: Fengwangshan (*hb. Forbes*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maxim. MSS.*). Herb. Kew.

Japan.

1. **Kadsura chinensis**, *Hance in Benth. Fl. Hongk.* p. 8.

Kadsura japonica, *Benth. in Hook. Kew Journ. Bot.* iii. 1851, p. 258, non *Don.*

CHINA: without locality (*Millett*!), Hongkong (*Champion*! *Wright*! *Hance*, 601!). Mus. Brit.; Herb. Kew.

Japan.

## 5. ANONACEÆ.

1. **Uvaria calamistrata**, *Hance in Journ. Bot.* 1882, p. 77.

Melodorum sp., *Hance in Journ. Linn. Soc.* xiii. p. 99.

HONGKONG: Heongkong (*Hance*, 7436!), Little Hongkong (*Lamont*! *Ford*!). Mus. Brit.; Herb. Kew.

2. **Uvaria microcarpa**, *Champ. in Hook. Kew Journ. Bot.* iii. 1851, p. 256; *Benth. Fl. Hongk.* p. 10.

Uvaria badiiflora, *Hance in Walp. Ann.* ii. p. 19.

Guatteria rufa, *Lindl. Bot. Reg.* t. 836, non *Dunal.*

KWANGTUNG: Canton (*Reeves*!), Lofaushan (*Ford*!); HONGKONG (*Millett*! *Beechey*! *Urquhart*! *Champion*! *Lamont*! *Hance*!). Mus. Brit.; Herb. Kew.

3. **Uvaria purpurea**, *Blume, Bijdr.* i. p. 11, et *Fl. Jav., Anon.* p. 13, t. 1 et t. 13 A; *Benth. Fl. Hongk.* p. 9.

Uvaria platypetala, *Champ. in Hook. Kew Journ. Bot.* iii. 1851, p. 257.

Uvaria rhodantha, *Hance in Walp. Ann.* ii. p. 19.

HONGKONG (*Champion*! *Wilford*! *Hance*!). Herb. Kew.

Malay Archipelago.

We have followed Bentham in the synonymy of this species, though we suspect that the specimens, such as they are, represent more than one species. In the Kew Herbarium are two specimens, each bearing only one flower: one having petals nearly as broad as long, and overlapping each other; the other having petals nearly twice as long as broad and free from each other except near the base.

4. **Uvaria synsepala**, *Miq. Journ. Bot. Néerl.* i. p. 128.

KWANGTUNG: Hoan (*Krone* ex *Miquel*).

1. **Artabotrys hongkongensis**, *Hance in Journ. Bot.* 1870, p. 71.

Artabotrys Blumei, *Hook. f. & Thoms. Fl. Ind.* i. p. 128, partim; *Benth. Fl. Hongk.* p. 10.

HONGKONG (*Champion*! *Lamont*!). Mus. Brit.; Herb. Kew.

2. **Artabotrys odoratissimus**, *R. Br. in Bot. Reg.* t. 423; *Benth. Fl. Hongk.* p. 10.

Uvaria uncata, *Lour. Fl. Cochinch.* p. 349; *Bretschn. Early Res.* p. 136.

Anona uncinata, *Lam. Encycl.* ii. p. 127.

Unona uncinata, *DC. Prodr.* i. p. 90.

CHINA: without locality (*Seemann*! *Millett*!); FOKIEN: Amoy (*Campbell*!); FORMOSA: Tamsui (*Oldham, 5/a*!); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

Western peninsula of India, and Ceylon and Java.

1. **Unona discolor**, *Vahl, Symb.* ii. p. 63, t. 36; *DC. Prodr.* i. p. 91; *Benth. Fl. Hongk.* p. 11.

Unona chinensis, *DC. Syst.* i. p. 495, et *Prodr.* i. p. 91.
Desmos chinensis, *Lour. Fl. Cochinch.* p. 352.
Unona Lessertiana, *Dun. Monogr. Anon.* p. 107, t. 26.

KWANGTUNG: Canton (*Loureiro*!), Macao (*Vachell*!); Pakhoi (*Playfair*!); HONGKONG: common, and in all collections. Mus. Brit.; Herb. Kew.

The Himalayas to Ceylon and the Malay Archipelago.

[*Cananga odorata*, Hook. f. et Thoms. (*Uvaria odorata*, Lam.) is recorded from China by Lamark, De Candolle, and others; but there are no Chinese specimens in the London herbaria.]

1. **Polyalthia suberosa**, *Benth. et Hook. f. Gen. Pl.* i. p. 25; *Hook. f. Fl. Brit. Ind.* i. p. 65,

Uvaria suberosa, *Roxb. Cor. Pl.* i. t. 34, et *Fl. Ind.* ii. p. 467.
Guatteria suberosa, *Dun. Monogr. Anon.* p. 128, et *in DC. Prodr.* i. p. 93.

KWANGTUNG: Pakhoi (*Playfair*!). Herb. Kew.

Bengal to Ceylon and the Malay Archipelago.

1. **Melodorum glaucescens**, *Hance in Journ. Bot.* 1881, p. 112.

HONGKONG: Victoria Peak, Little Hongkong, and Happy Valley woods (*Ford*!). Herb. Kew.

2. **Melodorum Oldhami**, *Hemsl.*, n. sp.

*Ramuli* ultimi graciles, ferrugineo-pubescentes, vetustiores nigrescentes, glabrescentes, rugulosi. *Folia* petiolata, vix coriacea, oblonga, 2½–5 poll. longa, 1–1¾ poll. lata, utrinque obtusa vel rotundata, supra secus costam impressam primum hirsutula, cito omnino glabrescentia, infra ferrugineo-puberula, tardius glabrescentia, venis lateralibus primariis 12–15-jugis prominentibus, venis ultimis minute reticulatis; petiolus crassiusculus, primum ferrugineo-pubescens, deinde glabrescens, nigrescens, transverse rugulosus. *Flores* ut videtur parvi (alabastra vix diametro 3 lineas tantum adsunt), oppositifolii, solitarii vel 2–3 aggregati, ferrugineo-pubescentes, breviter pedicellati; sepala deltoidea; petala crassa nondum bene evoluta; stamina indefinita; ovaria circiter 20, pilosa, ovulis 6 vel 8? *Carpella* ferrugineo-puberula, subglobosa, diametro usque ad 9 lineas, breviter stipitata; semina interdum minime 3 vel 4, discoidea, diametro circiter lineas 5.

FORMOSA (*Oldham*, 5/1 !). Mus. Brit.; Herb. Kew.

3. **Melodorum verrucosum**, *Hook. f. et Thoms. Fl. Ind.* i. p. 119; *Hook. f. Fl. Brit. Ind.* i. p. 80; *Hance in Journ. Bot.* 1883, p. 296.

HAINAN: Hungmo (*B. C. Henry* ex *Hance*).

Khasia mountains.

## 6. MENISPERMACEÆ.

1. **Limacia cuspidata**, *Hook. f. et Thoms. Fl. Ind.* i. p. 189; *Hook. f. Fl. Brit. Ind.* i. p. 100; *Benth. Fl. Hongk.* p. 12.

Hypserpa nitida, *Miers in Hook. Kew Journ. Bot.* iii. 1851, p. 258.

HONGKONG (*Champion*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

Bengal to Ceylon and the Malay Archipelago.

1. **Cocculus cuneatus**, *Benth. MSS. in Herb. Kew.*; *Swinhoe, List of Plants of the Island of Formosa.*

Nephroica cuneifolia, *Miers in Ann. Nat. Hist.* ser. 3, xix. p. 26, et *Contrib. Bot.* iii. p. 266.

FORMOSA: West coast (*Wilford* 526!), Takau (*Swinhoe*!), South coast (*Maries*!). Herb. Kew.

2. **Cocculus macrocarpus**, *Wight & Arn. Prodr. Fl. Penin. Ind. Or.* i. p. 13; *Hook. f. Fl. Brit. Ind.* i. p. 101; *Benth. Fl. Hongk.* p. 12; *Seem. Bot. Voy. 'Herald,'* p. 362; *Maxim. in Mél. Biol.* xi. p. 652; *Wight, Ill.* i. t. 7.

Diploclisia macrocarpa, *Miers in Ann. Nat. Hist.* ser. 2, vii. p. 42, et *Contrib. Bot.* iii. p. 280, t. 127.

HONGKONG (*Wright*! *Champion*! *Seemann*! *Hance*! *Lamont*!). Mus. Brit.; Herb. Kew.

The Concan to Ceylon.

3. **Cocculus Thunbergii**, *DC. Syst.* i. p. 524, *et Prodr.* i. p. 98; *Hance in Journ. Linn. Soc.* xiii. p. 99; *Maxim. in Mél. Biol.* xi. p. 651; *Franchet, Pl. David.* p. 24.

Cocculus ovalifolius, *DC. Syst.* i. p. 526, et *Prodr.* i. p. 99; *Benth. Fl. Hongk.* p. 13.

Cocculus diantherus, *Hook. et Arn. Bot. Beech. Voy.* p. 167.

Nephroia sarmentosa, *Lour. Fl. Cochinch.* p. 565.

Nephroica sarmentosa, N. hexagyna, N. ovalifolia, N. dilatata, N. hastata, N. triloba, N. cynanchoides, N. Thunbergii, et N. pycnantha, *Miers in Ann. Nat. Hist.* ser. 3, xix. pp. 25–26, et *Contrib. Bot.* iii. pp. 261–268.

EASTERN CHINA: common from Shanghai to Hongkong and Macao; also in SOUTHERN COREA and FORMOSA. Mus. Brit.; Herb. Kew.

Japan.

1. **Pericampylus incanus**, *Miers in Ann. Nat. Hist.* ser. 2, vii. p. 40, et *Contrib. Bot.* iii. p. 118, t. 111; *Benth. Fl. Hongk.* p. 13; *Hance in Journ. Linn. Soc.* xiii. p. 99.

Pericampylus aduncus, P. assamicus, et P. membranaceus, *Miers, Contrib. Bot.* iii. pp. 119–122.

Cocculus incanus, *Colebr. in Trans. Linn. Soc.* xiii. p. 57; *Maxim. in Mél. Biol.* xi. p. 650.

KWANGTUNG (*Ford*!); HONGKONG (*Wright*! *Hance*! *Lamont*!). Mus. Brit.; Herb. Kew.

Sikkim and Assam to Java.

1. **Menispermum dauricum**, *DC. Syst.* i. p. 540, et *Prodr.* i. p. 102; *Deless. Ic.* t. 100; *Bunge, Enum. Pl. Ch. Bor.* p. 4; *Miers, Contrib. Bot.* iii. p. 116; *Hance in Journ. Bot.* 1875, p. 130; *Maxim. in Mél. Biol.* xi. p. 647; *Franchet, Pl. David.* p. 25; *id. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 198 (dahuricum).

CHIHLI: Jehol (*David* ex *Franchet*), near Peking (*Bushell*! *Tatarinow*! *Bretschneider*!), Pohuashan (*Bretschneider*! hb. Forbes); SHINGKING: Fungwangshan (*Ross*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*). Mus. Brit.; Herb. Kew.

Siberia; Japan.

1. **Cyclea deltoidea**, *Miers in Hook. Kew Journ. Bot.* iii. 1851, p. 258, et *Contrib. Bot.* iii. p. 244; *Benth. Fl. Hongk.* p. 14; *Maxim. in Mél. Biol.* xi. p. 642; *Seem. Bot. Voy. 'Herald,'* p. 362.

KWANGTUNG (*Ford*!); HONGKONG (*Champion*! *Wright*! *Seemann*!). Mus. Brit.; Herb. Kew.

1. **Stephania hernandifolia**, *Walp. Rep.* i. p. 96; *Benth. Fl. Hongk.* p. 13.

Stephania longa, *Lour. Fl. Cochinch.* p. 609; *Miers, Contrib. Bot.* iii. p. 212 partim?

CHINA: common in the warmer parts. Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and Australia.

2. **Stephania tetrandra**, *S. Moore in Journ. Bot.* 1875, p. 225; *Maxim. in Mél. Biol.* xi. p. 646, t. 2.

KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 7 & 7 *a*!). Mus. Brit.; Herb. Kew.

1. **Fibraurea tinctoria**, *Lour. Fl. Cochinch.* p. 626; *Miers, Contrib. Bot.* iii. p. 41; *Hook. f. Fl. Brit. Ind.* i. p. 98.

CHINA (*Loureiro*!). Mus. Brit.

There is some doubt whether the Indian plant has been correctly referred to Loureiro's *Fibraurea*.

## 7. BERBERIDEÆ.

1. **Stauntonia chinensis**, *DC. Syst.* i. p. 514, et *Prodr.* i. p. 96; *Benth. Fl. Hongk.* p. 14.

CHINA, without locality (*Fortune*, 166!; *Macartney & Staunton*, spec. typ. in Mus. Brit.!); HONGKONG (*Champion*! *Wright*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

2. **Stauntonia hexaphylla**, *Decne. in Ann. Sc. Nat.* série 2, xii. p. 105; *Sieb. et Zucc. Fl. Jap.* i. p. 148, t. 11; *Maxim. in Engl. Jahrb.* vi. p. 58.

COREAN ARCHIPELAGO: Port Hamilton (*Wilford*!); LUCHU ARCHIPELAGO (*Döderlein* ex *Maximowicz*). Herb. Kew.

Japan.

1. **Akebia lobata**, *Decne. in Ann. Sc. Nat.* série 2, xii. p. 107?

KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

Japan.

2. **Akebia quinata**, *Decne. in Ann. Sc. Nat.* série 2, xii. p. 107; *Bot. Reg.* 1847, t. 28; *Hance in Journ. Bot.* 1878, p. 8; *S. Moore in Journ. Bot.* 1878, p. 137; *Maxim. Fl. As. Or. Fragm.* p. 4; *Franchet, Pl. David.* p. 25.

KIANGSU: Fengwangshan (*hb. Forbes*!); CHEKIANG: Ningpo (*Hancock*!); CHUSAN (*Fortune*, A. 31!); KIANGSI: Kiukiang (*Shearer*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*); COREA (*Carles*!); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*!). Mus. Brit.; Herb. Kew.

Japan.

1. **Berberis brachypoda**, *Maxim. in Mél. Biol.* ix. p. 711.
KANSUH (*Piasezki* ex *Maximowicz*).

2. **Berberis dasystachya**, *Maxim. in Mél. Biol.* ix. p. 711.
KANSUH (*Przewalski* ex *Maximowicz*).

3. **Berberis diaphana**, *Maxim. in Mél. Biol.* ix. p. 712.
KANSUH (*Przewalski* ex *Maximowicz*).

4. **Berberis Fortunei**, *Lindl. in Journ. Hort. Soc. Lond.* i. pp. 231 et 300 cum ic. xylogr., et v. p. 19; *Walp. Ann.* i. p. 21.

CHINA: in gardens at Shanghai (*Fortune*, 32, coll. 1846!). Mus. Brit.; Herb. Kew.

5. **Berberis nepalensis**, *Spreng. Syst. Veg.* ii. p. 120; *Hance in Journ. Bot.* 1882, p. 2; *Walp. Ann.* iv. p. 142; *Hook. f. Fl. Brit. Ind.* i. p. 109.

Mahonia napaulensis, *DC. Syst.* ii. p. 21, et *Prodr.* i. p. 109; *Deless. Ic. Pl. Sel.* ii. t. 4.

Berberis Bealei, *Fortune in Gard. Chron.* 1850, p. 212; *Bot. Mag.* t. 4852, et var. planifolia, t. 4846.

Berberis japonica, *R. Br. in Append. Tuckey Congo*, p. 22; *Lindl. in Paxt. Fl. Gard.* i. p. 11.

Mahonia japonica, *DC. Syst.* ii. p. 22.

Ilex japonica, *Thunb. Fl. Jap.* p. 79, et *Ic. Pl. Jap.* t. 12.

KIANGSU: in gardens (*Fortune*, 42!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*): SZECHUEN (*Mesny* ex *Hance*). Mus. Brit.; Herb. Kew.

Kashmir to Khasia, in the Nilgherries, Mergui, and Japan.

6. **Berberis sinensis**, *Desf. Cat. Hort. Par.* p. 158; *DC. Prodr.* i. p. 106; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 377; *Hance in Journ. Bot.* 1875, p. 130; *Regel in Act. Hort. Petrop.* ii. pp. 416, 417 (*varietates* angustifolia *et* cratægina); *Franchet, Pl. David.* p. 26; *Bot. Mag.* t. 6573.

CHIHLI: between Peking and Jehol (*Staunton*!), Pohuashan (*Bretschneider*! hb. Forbes), Jehol (*David*!), Chuilungshan (*Hancock*!); SHINGKING: various localities (*Ross*!); KANSUH: south of Hoangho (*Maximowicz MSS.*); COREA: Laoling (*Webster*!). Mus. Brit.; Herb. Kew.

Japan.

7. **Berberis stenophylla**, *Hance in Journ. Bot.* 1882, p. 257.
SZECHUEN (*Parker* ex *Hance*).

8. **Berberis Thunbergii**, *DC. Syst.* ii. p. 9, et *Prodr.* i. p. 106; *Bot. Mag.* t. 6646; *Franch. et Savat. Enum. Pl. Jap.* ii. p. 272 (var. Maximowiczii).

Berberis Maximowiczii, *Regel, Gartenflora*, 1872, p. 238.

SHENSI or KANSUH: Tsunglin range (*Maximowicz MSS.*).

Japan.

9. **Berberis vulgaris**, *Linn. Sp. Pl.* ed. 1, p. 330; *DC. Prodr.* i. p. 105; *Franchet, Pl. David.* p. 25 (var. amurensis).

CHIHLI: near Peking (*David*, 492, 581, ex *Franchet*); KANSUH (*Przewalski* ex *Maximowicz in litt.*).

Widely spread in Europe and temperate Asia.

10. **Berberis Wallichiana**, *DC. Prodr.* i. p. 107; *Hook. f. Fl. Brit. Ind.* i. p. 110.

SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz in litt.*).

Himalaya and Khasia mountains.

1. **Leontice microrhyncha**, *S. Moore in Journ. Linn. Soc.* xvii. p. 377, t. 16 (*cum* var. venosa).

SHINGKING: Kwaudien &c. (*Ross*!); KIANGSU: "an cult." (*Poli* ex *Franchet MSS.*); COREA: Laoling (*Webster*!). Herb. Kew.

1. **Nandina domestica**, *Thunb. Nov. Gen. Pl.* p. 14; *DC. Prodr.* i. p. 109; *Debeaux, Fl. Shangh.* p. 14; *Bot. Mag.* t. 1109.

CHIHLI: near Peking (*Bretschneider*!); KIANGSU: Shanghai (*Maingay* cult.!); CHEKIANG (*Staunton*!); KIANGSI: Kiukiang (*Shearer*!). Mus. Brit.; Herb. Kew.

Japan.

1. **Epimedium macranthum**, *Morren et Decne. in Ann. Sc. Nat.* série 2, ii. p. 352, t. 13; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 377; *Baker in Gard. Chron.* n. s. xiii. p. 683; *Bot. Reg.* t. 1906.

Epimedium violaceum, *Morren et Decne. l. c.* p. 354, t. 12.

SHINGKING: Changdien to Kwandien (*Ross*!); KIANGSU: Chinkiang (*Maries*!); KIANGSI: Kiukiang (*Maries*!); COREA: Laoling (*Webster*!). Hb. Kew.

Japan.

2. **Epimedium pubescens**, *Maxim. in Mél. Biol.* ix. p. 712.

SHENSI (*Piasezki* ex *Maximowicz*).

3. **Epimedium sagittatum,** *Baker in Gard. Chron.* (1880) n. s. xiii. p. 683.

Aceranthus sagittatus, *Sieb. et Zucc. in Abhandl. Bayer. Acad. Ph. Cl.* iv. 2. p. 175; *Miq. in Ann. Mus. Bot. Lugd. Bat.* ii. p. 71.

Epimedium (Aceranthus) sinense, *Sieb.* ex *Hance in Journ. Bot.* 1882, p. 2.

KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*Watters* ex *Hance*). Herb. Kew.

Japan?

1. **Jeffersonia dubia,** *Benth. et Hook. f.* ex *Baker et Moore in Journ. Linn. Soc.* xvii. p. 377.

Jeffersonia manchuriensis, *Hance in Journ. Bot.* 1880, p. 258.

Plagiorhegma dubium, *Maxim. Prim. Fl. Amur.* p. 34, t. 2.

SHINGKING: Corean Gate and Fungwangshan (*Ross*!); COREA (*Carles*!); Laoling (*Webster*!). Herb. Kew.

Amur.

1. **Podophyllum pleianthum,** *Hance in Journ. Bot.* 1883, p. 175.

FORMOSA: Tamsui (*Watters*!). Herb. Kew.

2. **Podophyllum versipelle,** *Hance in Journ. Bot.* 1883, p. 362.

KWANGTUNG: Lofaushan mountains (*B. C. Henry* ex *Hance*, 22200); various localities (*Faber*! *Ford*!). Herb. Kew.

## 8. NYMPHÆACEÆ.

1. **Nymphæa acutiloba,** *DC. Prodr.* i. p. 116; *Braam, Ic. Chin.* t. 18; *Regel, Tent. Fl. Ussur.* p. 18.

CHINA.

2. **Nymphæa tetragona,** *Georgi, Bemerk. einer Reise im Russ. Reich.* i. p. 220, ex *Caspary in Ann. Mus. Bot. Lugd. Bat.* ii. p. 251, t. 7.

Nymphæa pygmæa, *Ait. Hort. Kew.* ed. alt. iii. p. 293; *DC. Prodr.* i. p. 116; *Bot. Mag.* t. 1525.

CHINA (ex *Bot. Mag.*).

1. **Euryale ferox,** *Salisb. in Konig & Sims Ann. Bot.* ii. p. 74; *DC. Prodr.* i. p. 114; *Bot. Mag.* t. 1447.

CHIHLI: cultivated in lakes and ponds, Peking (ex *Bot. Mag.*); FORMOSA (*Oldham*, 9!); HAINAN (*Staunton*!). Mus. Brit.; Herb. Kew.

Kashmir to Bengal.

1. **Nelumbium speciosum,** *Willd. Sp. Pl.* ii. p. 1258; *DC. Prodr.* i. p. 113; *Debeaux, Fl. Shangh.* p. 15 *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 199; *Bot. Mag.* t. 903.

Nymphæa Nelumbo, *Lour. Fl. Cochin.* p. 340, ex *Bretschneider, Early Res.* p. 137.

CHINA: commonly cultivated, and it is included in Maximowicz's Index Flora Pekinensis, exclusis plantis cultis.'

Persia to China, and southward to tropical Australia.

## 9. PAPAVERACEÆ.

1. **Papaver alpinum,** *Linn. Sp. Pl.* ed. 1, p. 507; *DC. Prodr.* i. p. 118; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 468 (varietates); *Franchet, Pl. David.* p. 36.

Papaver nudicaule, *Linn. Sp. Pl.* ed. 1, p. 507; *DC. Prodr.* i. p. 117; *Bunge, Enum. Pl. Chin. Bor.* p. 4.

CHIHLI: near Peking and Pohuashan (*David,* 552, 2255, ex *Franchet*), Siaowutaishan (*Hancock*!). Herb. Kew.

North arctic and cold temperate regions.

2. **Papaver somniferum,** *Linn. Sp. Pl.* ed. 1, p. 508; *DC. Prodr.* i. p. 119.

SHENSI (*Piasezki* ex *Maximowicz MSS.*).

Both this and *P. Rhœas,* Linn., were cultivated in gardens according to Bunge (Enum. Pl. Ch. Bor. p. 4); and *Argemone mexicana,* Linn., exists as a weed of cultivation (Fl. Hongk. p. 15).

1. **Meconopsis racemosa,** *Maxim. in Mél. Biol.* ix. p. 713.

KANSUH (*Przewalski* ex *Maximowicz*).

1. **Cathcartia integrifolia,** *Maxim. in Mél. Biol.* ix. p. 713.

KANSUH (*Przewalski* ex *Maximowicz*).

1. **Stylophorum japonicum,** *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 11, et *Prol. Fl. Jap.* p. 199; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378.

SHINGKING: Fungwangshan (*Ross*!); COREA (*Webster*!). Herb. Kew.

Japan.

1. **Eomecon chionantha,** *Hance in Journ. Bot.* 1884, p. 346, et 1885, p. 254; *Bot. Mag.* t. 6871.

KWANGSI: Waitsap (*C. B. Henry* ex *Hance*, 22218) specim. cult. (*Ford* !). Herb. Kew.

1. **Bocconia cordata,** *Willd. Sp. Pl.* ii. p. 841; *DC. Prodr.* i. p. 121; *Bot. Mag.* t. 1905; *Hance in Journ. Bot.* 1870, p. 312, et 1874, p. 259; *Franchet, Pl. David.* p. 27.

CHEKIANG (*Fortune* ! *Staunton* !); KIANGSI: Kiukiang (*Shearer* ! *David*, 824, ex *Franchet*); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*); KWANGSI (*Graves* ex *Hance*). Mus. Brit.; Herb. Kew.

1. **Glaucium leptopodum,** *Maxim. in Mél. Biol.* ix. p. 714.

KANSUH (*Piasezki* ex *Maximowicz*).

1. **Chelidonium majus,** *Linn. Sp. Pl.* ed. 1, p. 505; *DC. Prodr* i. p. 123; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378 *Franchet, Pl. David.* p. 27.

CHIHLI: Jehol &c. (*David*, 463, 2066, ex *Franchet*); without locality (*Tatarinow* ! *Bushell* !); SHINGKING: Chienshan, Changdien, Fooling, and Corean Gate (*Ross* !); COREA (*Perry* !). Herb. Kew.

Europe and temperate Asia.

[*Chelidonium sinense,* DC. Syst. Veg. ii. p. 100 (*C. majus,* Lour. Fl. Cochinch. non Linn.), is a doubtful plant.]

## 10. FUMARIACEÆ.

1. **Hypecoum chinense,** *Franchet, Pl. David.* p. 27.

CHIHLI: near Peking (*David*, 507, 554, ex *Franchet*).

2. **Hypecoum erectum,** *Linn. Sp. Pl.* ed. 1, p. 124; *DC. Prodr.* i. p. 124; *Franchet, Pl. David.* p. 27.

CHIHLI: near Peking (*Bushell* ! *David*, 2348 !). Herb. Kew.

3. **Hypecoum leptocarpum,** *Hook. f. et Thoms. Fl. Ind.* i. p. 276; *Hook. f. Fl. Brit. Ind.* i. p. 120.

KANSUH: Tangut (*Przewalski* !). Herb. Kew.

Tibet and Sikkim.

1. **Dicentra spectabilis,** *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 12; *Bretschn. Early Res.* p. 92; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378.

Fumaria spectabilis, *Linn. Amœn. Acad.* vii. p. 457, t. 7.

Diclytra spectabilis, *DC. Syst. Veg.* ii. p. 110; *Debeaux, Fl. Shangh.* p. 15.

Corydalis spectabilis, *Willd. Sp. Pl.* ii. p. 858.

Capnorchis spectabilis, *Borck. in Römer Archiv Bot.* 1797, p. 46.

Eucapnos spectabilis, *Sieb. et Zucc. in Abhandl. Münch. Acad.* iii. p. 71.

Dielytra spectabilis, *Lindl. in Journ. Hort. Soc. Lond.* i. p. 233 et ii. p. 178, t. 3; *Bot. Mag.* t. 4458.

Hedycapnos spectabilis, *Planch. in Flore des Serres,* viii. p. 193, *in nota.*

CHIHLI: Pohuashan (*Bretschneider* !); SHINGKING: Saimaji mountains (*Ross* !). Commonly cultivated in North China. Herb. Kew.

1. **Corydalis adunca,** *Maxim. in Mél. Biol.* x. p. 47.

KANSUH (*Przewalski & Piasezki* ex *Maximowicz*); SHENSI or KANSUH: Tsunglin range (*Piasezki, Maximowicz MSS.*).

2. **Corydalis bulbosa,** *DC. Fl. Franç.* iv. (1805) p. 637, *Syst.* ii. p. 119, et *Prodr.* i. p. 127; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 199.

Corydalis solida, *Swartz in Sv. Bot.* viii. (1819) p. 531, ex *Nyman Consp. Fl. Europ.* p. 26; *Regel in Radde, Reisen, Bot.* Abth. i. p. 137; *Maxim. Fl. As. Or. Fragm.* p. 4.

Corydalis remota *et* C. gamosepala, *Maxim. Prim. Fl. Amur.* p. 37.

Corydalis remota *et* C. solida (*varietates*), *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378.

CHIHLI: near Peking (ex *Maximowicz*); SHINGKING: Fungwangshan, Kwandien, and other localities (*Ross* !); SHANTUNG: Chefoo (*Hancock* !); KIANGSU or KIANGSI: Chinkiang or Kiukiang (*Maries* !). Mus. Brit.; Herb. Kew.

Europe and temperate Asia.

3. **Corydalis Bungeana,** *Turcz. in Bull. Soc. Nat. Mosc.* xix. 1, 1846, p. 62; *Hance in Journ. Bot.* 1875, p. 130; *Debeaux, Fl. Shangh.* p. 16; *Franchet, Pl. David.* p. 29.

Corydalis racemosa, *Bunge, Enum. Pl. Ch. Bor.* p. 4, *non Pers.*

CHIHLI: Jehol and near Peking (*David,* 1701, 2374 !), Nankau Pass (*Bretschneider* !), near Peking (*Bunge* !); KIANGSU: Shanghai, on the walls and ramparts (ex *Debeaux*). Herb. Kew.

Var. **odontopetala** (petalis distincte denticulatis).

CHIHLI: Heilungtan (*Hancock* !) Herb. Kew.

4. **Corydalis curviflora**, *Maxim. Fl. Tangutica*, pars 1, t. 20. figg. 1–11, ined.

KANSUH: Tangut (*Przewalski!*) Herb. Kew.

5. **Corydalis dasyptera**, *Maxim. in Mél. Biol.* x. p. 45.

KANSUH (*Przewalski* ex *Maximowicz*).

6. **Corydalis decumbens**, *Pers. Syn. Pl.* ii. p. 269; *DC. Prodr.* i. p. 127; *Kurz in Journ. Bot.* 1873, p. 193.

Corydalis gracilipes, *S. Moore in Journ. Bot.* 1875, p. 226.

CHINA: without locality (*Fortune, 2*, 1846!); CHEKIANG: Meichi (*Carles & Forbes, hb. Forbes!*); KIANGSI: Kiukiang (*Shearer!*); YUNNAN (*Anderson* ex *Kurz*). Mus. Brit.; Herb. Kew.

Japan.

7. **Corydalis edulis**, *Maxim. Mél. Biol.* x. p. 49.

Corydalis chinensis, *Franchet, Pl. David*, p. 28.

KIANGSU: Shanghai (*hb. Forbes!*): KIANGSI: walls of Kiukiang (*David*, 844!); HUPEH, SHENSI, and KANSUH (*Piasezki* ex *Maximowicz*). Herb. Kew.

8. **Corydalis incisa**, *Pers. Syn. Pl.* ii. p. 269; *DC. Prodr.* i. p. 127; *Maxim. Fl. As. Or. Fragm.* p. 4.

CHEKIANG: Ningpo (*Hancock!*), Meichi (*Carles & Forbes, hb. Forbes!*); KIANGSI: Kiukiang (*Shearer! Maries!*). Herb. Kew.

Japan.

9. **Corydalis linarioides**, *Maxim. in Mél. Biol.* x. p. 44.

KANSUH (*Przewalski* ex *Maximowicz*).

10. **Corydalis melanochlora**, *Maxim. in Mél. Biol.* x. p. 43.

KANSUH (*Przewalski* ex *Maximowicz*).

11. **Corydalis micropoda**, *Franchet, Pl. David.* p. 29.

SHENSI: valley of Hanchongfou (*David* ex *Franchet*).

12. **Corydalis ochotensis**, *Turcz. in Ledeb. Fl. Ross.* i. p. 103?

NORTH CHINA (*Tatarinow!*). Herb. Kew.

An imperfect specimen, apparently intermediate between this and *C. Raddeana*, Regel, which Maximowicz regards as varieties of one.

13. **Corydalis pallida**, *Pers. Syn. Pl.* ii. p. 270; *DC. Prodr.* i. p. 129; *Maxim. in Mél. Biol.* x. p. 49, *in nota*, et *Fl. As. Or. Fragm.* p. 4; *Bot. Mag.* t. 6826.

Sophorocapnos pallida, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1841, i. p. 570; *Flora*, xxxi. (1848) p. 707.

Corydalis heterocarpa, *Sieb. et Zucc.*, C. speciosa, *Maxim.*, et C. Wilfordi, *Regel*, fide *Maxim.*

Corydalis aurea, *Willd.*, var. speciosa, *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378?

Common in Northern and Eastern China, from CHIHLI to the COREA, and southward to KWANGTUNG and FORMOSA. Mus. Brit.; Herb. Kew.

Siberia, Japan, and North America.

We have followed Maximowicz in the synonymy of this species and *C. racemosa*, Pers., though we are unable to sort satisfactorily the numerous herbarium specimens into the two species. Regel and others have referred some of the forms to the North-American *C. aurea*, Willd., which Maximowicz (Mél. Biol. x. p. 49) says may always be distinguished by the shape of the spur and the smooth seeds.

14. **Corydalis racemosa**, *Pers. Syn. Pl.* ii. p. 270; *DC. Prodr.* i. p. 129; *Maxim. Fl. As. Or. Fragm.* p. 4; *Franchet, Pl. David.* p. 30; *Franch. et Savat. Enum. Pl. Jap.* ii. p. 275.

SHANTUNG: along the sea-coast (*Hancock*!); KIANGSU: Tahu lake near Shanghai (*hb. Forbes*!); CHEKIANG: Ningpo (*Savatier* ex *Franchet*; *Everard*!); SHENSI (*Piasezki* ex *Maximowicz*; *David* ex *Franchet*). Herb. Kew.

Japan.

Sir Joseph Hooker (Bot. Mag. sub t. 6826) states that this has much smaller seeds than *C. pallida*.

15. **Corydalis rosea**, *Maxim. in Mél. Biol.* x. p. 46.

KANSUH (*Przewalski* ex *Maximowicz*).

16. **Corydalis Sheareri**, *S. Moore in Journ. Bot.* 1875, p. 225; *Maxim. in Mél. Biol.* x. p. 45, *sub* C. trachycarpa.

CHINA: without locality (*Fortune*, 10!), Chinkiang or Kiukiang (*Maries*!); KIANGSI: Kiukiang (*Shearer*!), near Yangtsze (*Capt. Gill*!). Mus. Brit.; Herb. Kew.

17. **Corydalis straminea**, *Maxim. Fl. Tangutica*, pars 1, t. 20. figg. 17–24, ined.

KANSUH: Tangut (*Przewalski*!) Herb. Kew.

18. **Corydalis streptocarpa**, *Maxim. in Mél. Biol.* x. p. 48.

KANSUH (*Przewalski* ex *Maximowicz*).

19. **Corydalis suaveolens,** *Hance in Journ. Bot.* 1880, p. 258.

KWANGTUNG: along the North River (*Gerlach* ex *Hance*); cultivated (*Ford!*). Herb. Kew.

20. **Corydalis trachycarpa,** *Maxim. in Mél. Biol.* x. p. 45.

KANSUH (*Przewalski* ex *Maximowicz*).

In the Kew Herbarium is one flowering specimen (Chinlung-shan, Peking, *Hancock*, 50) of what may be an undescribed species of *Corydalis*. It is a bulbous species near *C. bulbosus*, but very slender and much-branched, perhaps, however, only accidentally so.

## 11. CRUCIFERÆ.

1. **Cheiranthus aurantiacus,** *Bunge, Enum. Pl. Chin. Bor.* p. 5; *Franchet, Pl. David.* p. 32.

CHIHLI: near Peking (*Moellendorff*, ex *herb. Hance*, 13568!; *David*, 443, ex *Franchet*). Herb. Kew.

1. **Nasturtium amphibium,** *R. Br. in Ait. Hort. Kew.* ed. 2, iv. p. 110; *DC. Prodr.* i. p. 138; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469.

CHIHLI: Peking (ex *Maximowicz*).

Europe; North Africa, and temperate Asia.

2. **Nasturtium austriacum,** *Crantz, Stirp. Austr.* fasc. 1 (1762), p. 15, t. 2.

Camelina austriaca, *R. Br. in Ait. Hort. Kew.* ed. 2, iv. p. 93; *DC. Prodr.* i. p. 201; *Bunge, Enum. Pl. Chin. Bor.* p. 6.

Nasturtium Camelina, *Fisch. et Mey. Ind. Sem. Hort. Petrop.* 1835, p. 34.

CHIHLI: in fields near Peking (ex *Bunge*).

Bunge's plant is probably *N. globosum*, Turcz., which is very closely allied to the European *N. austriacum*.

3. **Nasturtium globosum,** *Turcz. Fl. Baic.-Dahur.* i. p. 109; *Hance in Journ. Linn. Soc.* xiii. p. 76; *Franchet, Pl. David.* p. 31.

Nasturtium cantoniense, *Hance in Journ. Bot.* 1865, p. 378; *Walp. Ann.* vii. p. 99.

CHIHLI: Jehol and near Peking (*David*, 393, 1957, ex *Franchet*), near Peking (*Bretschneider!*); KWANGTUNG: banks of the West River (*Sampson*, ex *herb. Hance*, 5429!). Herb. Kew.

Siberia.

4. **Nasturtium indicum,** *DC. Syst.* ii. p. 199, et *Prodr.* i. p. 139; *Hook. f. Fl. Brit. Ind.* i. p. 134.

Clandestinaria indica, *Spach, Hist. Nat. Veg.* vi. p. 429.

Nasturtium atrovirens, *DC. Syst.* ii. p. 201; *Prodr.* i. p. 139.

Sisymbrium atrovirens, *Hornem. Hort. Hafn. Suppl.* p. 72, ex *Spach, l. c.*

CHINA: without locality (*Macartney & Staunton*!). Mus. Brit.

Widely spread in India and Malaya.

5. **Nasturtium microspermum**, *DC. Syst.* ii. p. 199, et *Prodr.* i. p. 139; *Bunge, Enum. Pl. Chin. Bor.* p. 5; *Maxim. Ind. Pl. Pek. in Prim. Fl. Amur.* p. 469; *Debeaux, Fl. Shangh.* p. 17; *Franchet, Pl. David.* p. 32.

Nasturtium benghalense, *Hance in Journ. Linn. Soc.* xiii. p. 99, et *in Journ. Bot.* 1879, p. 8, non *DC.*

CHIHLI: in fields near Ssijuissy and elsewhere (ex *Bunge*); SHANTUNG: without locality (*Staunton*!, spec. typ. in Mus. Brit.), Chefoo (*Perry*!); KIANGSU: Shanghai (*Poli* ex *Franchet MSS.*); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Foochow (*Perry*!); SHENSI: southern part (*David* ex *Franchet*); KWANGTUNG: Whampoa (*Hance*, 6554!), Simchung (*Tate*!). Mus. Brit.; Herb. Kew.

This is readily distinguished from *N. benghalense* by its subsessile flowers, &c.

6. **Nasturtium montanum,** *Wall. Cat.* 4778 in part; *Benth. Fl. Hongk.* p. 16; *Hook. f. Fl. Brit. Ind.* i. p. 134; *Debeaux, Fl. Shang.* p. 17; *Franchet, Pl. David.* p. 31.

CHIHLI: near Peking (*Bretschneider*!); KIANGSU: Shanghai (*Maingay*!); CHEKIANG: Ningpo (*Oldham*, 44!); KIANGSI, Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 7 and 14!); SHENSI: Hanchongfou (*David* ex *Franchet*); YUNNAN: Momien (*Anderson*!); HONGKONG (*Wright*! *Lamont*! *Hance*, 694!); COREA: Port Chusan (*Wilford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

The Punjab to Sikkim and Khasia, southward through Birma to Java, and in Japan.

7. **Nasturtium officinale,** *R. Br. in Ait. Hort. Kew.* ed. 2, iv. p. 110; *DC. Prodr.* i. p. 137; *Hemsl. in Journ. Bot.* 1876, p. 207.

KIANGSU: Tahu lake (*hb. Forbes*!).

Europe, North Africa, and temperate Asia, and naturalized in other countries.

8. **Nasturtium palustre,** *DC. Syst.* ii. p. 191, et *Prodr.* i. p. 137; *Bunge, Enum. Pl. Chin. Bor.* p. 5; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378; *Franchet, Pl. David.* p. 31, et *in Mém. Soc. Nat. Cherbourg,* xxiv. p. 199; *Debeaux, Fl. Tients.* p. 10 (varietates plures).

CHIHLI: near Peking (*Bretschneider*!), Jehol (*David,* 1884, ex *Franchet*); SHINGKING (*Ross*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*). Herb. Kew.

Widely spread in north temperate and cold regions.

[*Nasturtium sinense,* DC. Syst. ii. p. 699, syn. *Lepidium petræum,* Lour. Fl. Cochinch. p. 395, *Lepidium chinense,* Stokes, Bot. Mat. Med. iii. p. 429, *Hutchinsia petræa,* Desv. Journ. de Bot. iii. p. 168, has not been identified.]

9. **Nasturtium sylvestre,** *R. Br. in Ait. Hort. Kew.* ed. 2, iv. p. 110; *DC. Prodr.* i. p. 137.

CHINA (ex *De Candolle*).

Europe, North Africa, and temperate Asia; introduced in America.

1. **Barbarea vulgaris,** *R. Br. in Ait. Hort. Kew.* ed. 2, iv. p. 109; *DC. Prodr.* i. p. 140.

SHINGKING: Moukden (*Webster*!). Herb. Kew.

Europe, temperate Asia, North and South Africa, and Australia; perhaps introduced in the southern hemisphere.

1. **Alyssum incanum,** *Linn. Sp. Pl.* ed. 1, p. 650.

Berteroa incana, *DC. Syst.* ii. p. 291, et *Prodr.* i. p. 158; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 199.

SHANTUNG: Chefoo (*Fauvel* ex *Franchet*).

Europe and temperate Asia.

1. **Draba incana,** *Linn. Sp. Pl.* ed. 1, p. 643; *DC. Prodr.* i. p. 170 (*sub* D. contorta).

CHIHLI: Siaowutaishan (*Hancock, Maxim.* determ.).

North arctic and alpine regions.

2. **Draba nemorosa,** *Linn. Sp. Pl.* ed. 1, p. 643; *Franchet, Pl. David.* p. 35, et *in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 200

(*varietates* hebecarpa *et* leiocarpa, *Ledeb. Fl. Ross.* i. p. 154); *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378.

Draba nemoralis, *DC. Prodr.* i. p. 171.

CHIHLI: Jehol (*David*!); SHINGKING: Moukden (*Webster*!), Fungwangshan (*Ross*!); SHANTUNG: Chefoo (*Hancock*!); KIANGSI: Kiukiang (*Shearer*!); SHENSI: southern part (*David* ex *Franchet*); COREA (*Carles*!). Herb. Kew.

Europe, North Asia, and North America.

A third undetermined species of *Draba*, near *D. elata*, Hook. f. & Thoms., is enumerated in Franchet's list of Delavay's Yunnan plants.

1. **Arabis hirsuta**, *Scop. Fl. Carniol.* ed. 2, ii. p. 30; *DC. Prodr.* i. p. 144.

Turritis hirsuta, *Linn. Sp. Pl.* ed. 1, p. 666.

COREA: Port Chusan (*Wilford*!). Herb. Kew.

Europe, temperate Asia, and North America.

2. **Arabis pendula**, *Linn. Sp. Pl.* ed. 1, p. 665; *DC. Prodr.* i. p. 147; *Franchet, Pl. David.* p. 33 (*var.* hypoglauca).

CHIHLI: Jehol (*David*, 1986, 2181, ex *Franchet*).

Siberia.

3. **Arabis perfoliata**, *Lam. Dict.* i. p. 219.

Turritis glabra, *Linn. Sp. Pl.* ed. 1, p. 666; *DC. Prodr.* i. p. 142.

KIANGSU: Chinkiang (*Maries*!); COREA: west coast (*Perry*!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*!). Herb. Kew.

Europe and temperate Asia.

4. **Arabis Piasezkii**, *Maxim. in Mél. Biol.* x. p. 567.

KANSUH: southern part (*Piasezki* ex *Maximowicz*).

5. **Arabis Stelleri**, *DC. Syst.* ii. p. 242; β. japonica, *Schmidt, Reise in Amur.* p. 111, ex *Franch. et Savat. Enum. Pl. Jap.* i. p. 33.

Arabis alpina, *Linn.*, *var.*? japonica, *A. Gr. Pl. Jap.* p. 307.

Arabis japonica, *A. Gr. l. c.* p. 381.

COREAN ARCHIPELAGO: Port Hamilton (*Wilford*! *Oldham*, 52 and 998!) Herb. Kew.

Amur to Japan.

6. **Arabis**, sp. (*aff.* A. serratæ, *Franch. et Sav.*).

CHIHLI: Chiulungshan, Peking (*Hancock*!). Herb. Kew.

7. **Arabis**, sp. n.?

COREA (*Carles*!); COREAN ARCHIPELAGO: Tracey Island (*Oldham*, 58!). Herb. Kew.

1. **Cardamine Griffithii**, *Hook. f. et Thoms. in Journ. Linn. Soc.* v. p. 146; *Hook. f. Fl. Brit. Ind.* i. p. 139.

Cardamine pratensis, *Linn.*, *var.?* *Kurz in Journ. Bot.* 1873, p. 193.

YUNNAN: Mawein (*Anderson*!) Herb. Kew.

Bhotan.

2. **Cardamine hirsuta**, *Linn. Sp. Pl.* ed. 1, p. 655; *Benth. Fl. Hongk.* p. 16; *Maxim. in Mél. Biol.* ix. p. 6; *Franchet, Pl. David.* p. 34.

CHIHLI: Jehol (*David* ex *Franchet*); FOKIEN: Amoy (*Hance*, 1475): HONGKONG (*Wright*!) Herb. Kew.

Very widely spread.

Subspecies **flexuosa**, *Withering, Brit. Pl.* ed. 3 (1796), iii. p. 578.

Cardamine sylvatica, *Link. in Hoffm. Phytogr. Blätt.* i. (1803), p. 50; *Franch. et Sav. Enum. Pl. Jap.* i. p. 35; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 199.

SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); CHEKIANG: Ningpo (*Savatier* ex *Franchet MSS.*); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 47!). Herb. Kew.

There are also specimens in the Kew Herbarium from Shanghai (*Maingay*), and Chinkiang or Kiukiang (*Maries*), strongly resembling the European forms *C. multicaulis*, Hoppe, and *C. umbrosa*, Andrz.

3. **Cardamine Impatiens**, *Linn. Sp. Pl.* ed. 1, p. 655; *DC. Prodr.* i. p. 152.

SHENSI: (*Piasezki* ex *Maximowicz MSS.*).

Europe and temperate Asia.

4. **Cardamine Lamontii**, *Hance in Journ. Bot.* 1876, p. 363.

HONGKONG (*Lamont* ex *Hance*).

5. **Cardamine lyrata**, *Bunge, Enum. Pl. Chin. Bor.* p. 50; *Walp. Rep.* i. p. 135; *Maxim. in Mél. Biol.* ix. p. 6.

CHIHLI: by rivulets near Ssijuissy (*Bunge*!). Herb. Kew.

6. **Cardamine macrophylla**, *Willd. Sp. Pl.* iii. p. 484; *DC. Prodr.* i. p. 152; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378; *Maxim. in Mél. Biol.* ix. p. 10; *Franchet, Pl. David.* p. 34.

Dentaria dasyloba, *Turcz.*; *Maxim. Prim. Fl. Amur.* p. 44.

CHIHLI: Jehol (*David*, 1714!), mountains near Peking (*Moellendorff*!); SHINGKING: Kwandien and Chienshan (*Ross*!); Yungling (*Webster*!). Herb. Kew.

Siberia; Japan.

7. **Cardamine paradoxa**, *Hance in Journ. Bot.* 1868, p. 111; *Maxim. in Mél. Biol.* ix. p. 4; *Hook. Ic. Pl.* t. 1285.

KWANGTUNG: near Kaikunshek (*Sampson*, herb. Hance, 13844!). Herb. Kew.

8. **Cardamine parviflora**, *Linn. Sp. Pl.* ed. 2, p. 914; *DC. Prodr.* i. p. 152; *Bunge, Enum. Pl. Chin. Bor.* p. 5; *S. Moore in Journ. Bot.* 1875, p. 230; *Maxim. in Mél. Biol.* ix. p. 10; *Franchet, Pl. David.* p. 34.

CHIHLI: near Ssijuissy (*Bunge*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA (*Oldham* 170!); SHENSI: southern part (*David* ex *Franchet*). Herb. Kew.

Europe, North Africa, and temperate Asia.

9. **Cardamine pratensis**, *Linn. Sp. Pl.* ed. 1, p. 656; *DC. Prodr.* i. p. 151.

KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

North temperate and cold regions; also in Chili.

[*Dentaria repens*, Franchet in Bull. Soc. Bot. France, xxxii. p. 5, from Yunnan, is unknown to us.]

10. **Cardamine tenuifolia**, *Turcz. Fl. Baic.-Dahur.* i. p. 120; *Maxim. in Mél. Biol.* ix. p. 4.

Dentaria tenuifolia, *Ledeb. Fl. Ross.* i. p. 130.

Dentaria tenella, *Regel, Fl. Ussur.* n. 66, *non Pursh.*

COREA: Laoling (*Webster*!). Herb. Kew.

Throughout Siberia and Mandshuria, and in Sachalin.

11. **Cardamine? scaposa**, *Franchet, Pl. David.* p. 33.

CHIHLI: Jehol (*David* ex *Franchet*).

*Cardamine Chelidonia*, Linn., included by Loureiro (Fl. Cochinch. p. 398) from Canton, is not in any of the later collections.

1. **Hesperis aprica**, *Poir. in Lam. Encycl. Meth. Suppl.* iii. p. 194; *Ledeb. Fl. Ross.* i. p. 173.

Cheiranthus apricus, *Stev. in Willd. Sp. Pl.* iii. p. 518; *Franchet, Pl. David.* p. 32 (*var.* trichosepala).

**Hesperis trichosepala**, *Turcz. in Bull. Soc. Nat. Mosc.* v. (1832) p. 180.

CHIHLI: Pohuashan (*David*, 2322, ex *Franchet*).

Siberia.

1. **Malcolmia africana**, *R. Br. in Ait. Hort. Kew.* ed. 2, iv. p. 121; *DC. Prodr.* i. p. 187.

SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*).

Western Europe to North-west India and Songaria.

1. **Dontostemon dentatus**, *Ledeb. Fl. Ross.* i. p. 175; *Franchet, Pl. David.* p. 36; *Maxim. in Mél. Biol.* ix. p. 10; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378.

Andreoskia dentata, *Bunge, Enum. Pl. Chin. Bor.* p. 6.

Dontostemon eglandulosus, *C. A. Mey.*, et C. oblongifolius, *Ledeb.*, fide *Maxim.*

CHIHLI: near Peking (*Bretschneider!*), Jehol (*David* ex *Franchet*); SHINGKING: Chienshan (*Ross!*); SHANTUNG: Chefoo (*Hancock*, Maximowicz determ.); COREA: Port Chusan (*Wilford! Carles!*); COREAN ARCHIPELAGO: Long Reach (*Oldham*, 56 and 1054!). Herb. Kew.

Siberia; Japan.

2. **Dontostemon micranthus**, *C. A. Mey. in Ledeb. Fl. Altai.* iii. p. 120; *Ledeb. Ic. Pl. Fl. Ross.* iv. t. 353; *Franchet, Pl. David.* p. 36.

CHIHLI: Jehol (*David*, 970, 1970, ex *Franchet*).

Altai.

1. **Sisymbrium heteromallum**, *C. A. Mey. in Ledeb. Fl. Altai.* iii. p. 132, et *Ic. Pl. Fl. Ross.* t. 263; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469.

CHIHLI: near Peking (ex *Maximowicz*).

Altai.

2. **Sisymbrium Irio**, *Linn. Sp. Pl.* ed. 1, p. 659; *DC. Prodr.* i. p. 192.

Sisymbrium junceum, *Bieb.*, *Hance in sched.* 12645.

CHIHLI: near Peking (*Williams!*). Herb. Kew.

Europe, North Africa to North-west India.

3. **Sisymbrium Piasezkii**, *Maxim. in Mél. Biol.* x. p. 569.

KANSUH (*Piasezki* ex *Maximowicz*).

4. **Sisymbrium Sophia**, *Linn. Sp. Pl.* ed. 1, p. 659; *DC. Prodr.* i. p. 193; *Bunge, Enum. Pl. Chin. Bor.* p. 6; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469; *Debeaux, Fl. Tchefou.* p. 26; *Franchet, Pl. David.* p. 36.

CHIHLI: confines of Mongolia and China (ex *Bunge*); SHANTUNG: Chefoo (*Perry*!); SHENSI: southern part (*David* ex *Franchet*). Herb. Kew.

Europe and North Africa to Japan.

1. **Erysimum cheiranthoides**, *Linn. Sp. Pl.* ed. 1, p. 661; *Franchet, Pl. David.* p. 37.

CHIHLI: Peking (*David*, 2409, 2352, ex *Franchet*); SHENSI: southern part (*David* ex *Franchet*).

Europe, North Africa, North Asia, and North America.

2. **Erysimum hieraciifolium**, *Linn. Sp. Pl.* ed. 2, p. 923; *Prodr.* i. p. 198.

CHIHLI: near Peking (*Bushell*!); COREA (*Perry*!). Herb. Kew.

North and Central Europe, eastward through Siberia.

3. **Erysimum macilentum**, *Bunge, Enum. Pl. Chin. Bor.* p. 6; *Walp. Rep.* i. p. 169; *Franchet, Pl. David.* p. 37.

CHIHLI: near Peking (*Bunge*!); HUPEH (*Piasezki* ex *Maximowicz*); SHENSI or KANSUH (*Piasezki* ex *Maximowicz*). Herb. Kew.

4. **Erysimum stigmatosum**, *Franchet, Pl. David.* p. 38.

CHIHLI: Peking (*David*, 2394, ex *Franchet*).

1. **Brassica campestris**, *Linn. Sp. Pl.* ed. 1, p. 666; *DC. Prodr.* i. p. 214.

Brassica chinensis, *Linn. Amœn. Acad.* iv. p. 280; *DC. Prodr.* i. p. 215; *Debeaux, Fl. Tients.* p. 10, et *Fl. Shangh.* p. 18; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 200.

Brassica oleracea, *Lour. Fl. Cochinch.* p. 396?

Sinapis pekinensis, *Lour. Fl. Cochinch.* p. 400; *Bretschn. Early Res.* p. 137?

SHENSI (*Piasezki* ex *Maximowicz*); SZECHUEN: Chungking (*Bourne*!). Herb. Kew.

Europe and Siberia.

There are several varieties of this species cultivated in China, and, from the Chinese names given by Loureiro, Bretschneider,

and Bourne, the above synonymy is probably correct. See note under *Brassica juncea.*

2. **Brassica cernua,** *Thunb. Fl. Jap.* p. 261; *DC. Prodr.* i. p. 219.

CHIHLI: Peking, cult. (*Skatchkoff*!). Mus. Brit.; Herb. Kew.

Japan.

3. **Brassica juncea,** *Hook. f. et Thoms. in Journ. Linn. Soc.* v. p. 170.

Sinapis juncea, *Linn. Sp. Pl.* ed. 1, p. 668; *DC. Prodr.* i. p. 218; *Franchet, Pl. David.* p. 40; *Bretschn. Early Res.* p. 137.

Sinapis chinensis, *Linn. Mant.* p. 95; *DC. Prodr.* i. 219.

Sinapis brassicata, *Linn. Syst. Nat.* ed. 12, iii. App. p. 231.

CHIHLI: Jehol (*David*, 1979, ex *Franchet*); HUPEH (*A. Henry*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*); SZECHUEN (*Bourne*!). Mus. Brit.; Herb. Kew.

Several varieties of this species are commonly cultivated in India and China, and its exact native country is uncertain. Mr. F. S. A. Bourne, H.M. Consular Agent at Chungking, has sent to Kew a fine series of specimens of varieties of this and *B. campestris*, cultivated in the province of Szechuen, with particulars of their uses which will be published elsewhere. One variety of *B. juncea* is cultivated in immense quantities, and, after drying in the sun, is pickled and eaten with rice.

[*Brassica violacea*, Linn. Sp. Pl. ed. 1, p. 667, is not represented in the Linnean Herbarium, and is quite indeterminable from the description.]

1. **Eruca sativa,** *Lam. Fl. Franç.* ii. p. 496; *DC. Prodr.* i. p. 223; *Hance in Journ. Bot.* 1883, p. 296.

KWANGTUNG: Kowlung (*Lamont*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*). Mus. Brit.

Europe, North Africa, and North Asia.

1. **Moricandia sonchifolia,** *Hook. f. Bot. Mag.* t. 6243.

Orychophragmus sonchifolius, *Bunge, Enum. Pl. Chin. Bor.* p. 7; *Hemsl. in Journ. Bot.* 1876, p. 207; *S. Moore in op. cit.* 1878, p. 137; *Franchet, Pl. David.* p. 40; *Debeaux, Fl. Tients.* p. 11.

Moricandia sonchifolia, β. homœophylla, *Hance in Journ. Bot.* 1880, p. 259.

CHIHLI: near Peking (*Bunge*! *Bushell*! *David*, 2365! *Playfair*!), Pohuashan (*Bretschneider*!), Heilungtan (*Hancock*); SHANTUNG: Chefoo (*hb. Forbes*!); KIANGSU or KIANGSI: Chinkiang or Kiukiang (*Maries*!); KIANGSU: Fengwangshan (*hb. Forbes*!); CHEKIANG: Ningpo (*Everard*! *Cooper*!); SHENSI (*Piasezki* ex *Maximowicz*). Herb. Kew.

1. **Capsella Bursa-pastoris**, *Mœnch. Meth.* p. 271; *DC. Prodr.* i. p. 177; *Benth. Fl. Hongk.* p. 16.

Thlaspi Bursa-pastoris, *Linn. Sp. Pl.* ed. 1, p. 647; *Lour. Fl. Cochinch.* p. 395; *Franchet, Pl. David.* p. 39.

CHINA. Apparently common in cultivated ground.

Very generally diffused.

1. **Senebiera integrifolia**, *DC. in Mém. Soc. Hist. Nat. Par.* Ann. vii. p. 140, t. 8, et *Prodr.* i. p. 202; *Engler, Bot. Jahrb.* vi. p. 58.

LUCHU ARCHIPELAGO (ex *Engler*); PRATAS ISLAND (*Wilford*!). Herb. Kew.

Madagascar, South Africa, and Eastern Australia.

1. **Lepidium chinense**, *Franchet, Pl. David.* p. 39.

SHENSI: southern part (*David* ex *Franchet*).

2. **Lepidium latifolium**, *Linn. Sp. Pl.* ed. 1, p. 644; *Ledeb. Fl. Altai.* iii. p. 189 (varietates plures); *DC. Prodr.* i. p. 207; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378; *Hance in Journ. Bot.* 1883, p. 296; *Debeaux, Fl. Tients.* p. 11.

Lepidium affine, *Ledeb. in App. ad Ind. Sem. Hort. Dorp.* 1821, p. 22; *Bunge, Enum. Pl. Chin. Bor.* p. 6.

CHIHLI: Peking (ex *Bunge*), mountains west of Peking (*Bretschneider*, *hb. Forbes*!), Tientsin (ex *Debeaux*); SHINGKING: Chienshan (*Ross*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*). Herb. Kew.

Europe eastward.

3. **Lepidium ruderale**, *Linn. Sp. Pl.* ed. 1, p. 645; *DC. Prodr.* i. p. 205; *Regel in Radde, Reisen in Ost-Sib. Bot.* Abth. i. p. 209; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 200.

Lepidium incisum, *Roth. Nov. Cat.* i. p. 224; *Debeaux, Fl. Shangh.* p. 18; *Franchet, Pl. David.* p. 39.

Lepidium micranthum, *Ledeb. Fl. Ross.* i. p. 205, et *Ic. Pl. Fl. Ross.* i. p. 22, t. 92.

CHIHLI: Peking (*Bretschneider*!); SHINGKING: Fooling (*Ross*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); KIANGSU: Shanghai (ex *Debeaux*); KANSUH (*Piasezki* ex *Maximowicz MSS.*). Herb. Kew.

Europe eastward.

1. **Cœlonema draboides,** *Maxim. in Mél. Biol.* x. p. 572.

KANSUH (*Przewalski* ex *Maximowicz*).

1. **Dilophia fontana,** *Maxim. in Mél. Biol.* x. p. 570.

KANSUH (*Przewalski* ex *Maximowicz*).

1. **Thlaspi arvense,** *Linn. Sp. Pl.* ed. 1, p. 646; *DC. Prodr.* i. p. 175; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 378; *Hance in Journ. Bot.* 1882, p. 257; *Franchet, Pl. David.* p. 38.

SHINGKING: various localities (*Ross*! *Webster*!); KIANGSU: Shanghai (*Maingay*, 493!); ANWHEI: Wuhu (*Bullock* ex *Hance*); COREA (*Perry*!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*, 691! *Oldham*, 49!); without locality (*Fortune*!). Mus. Brit.; Herb. Kew.

Europe and North Africa to the Himalayas and eastward.

1. **Isatis indigotica,** *Fortune in Journ. Hort. Soc. Lond.* i. p. 269, cum ic. xylog. p. 271; *Debeaux, Fl. Shangh.* p. 19.

KIANGSU: Shanghai &c., cultivated for dyeing purposes (*Fortune*).

We have seen no authenticated specimens of Fortune's plant; and Fortune's figure differs from the specimens of *Isatis* we have seen from the Amur and Mandshuria in the cauline leaves being quite destitute of auricles; but it is probably a variety of *I. tinctoria*, Linn., as is a Corean specimen lately received at Kew from Mr. Carles.

1. **Bunias tcheliensis,** *Debeaux, Fl. Tientsin,* p. 12.

CHIHLI (ex *Debeaux*).

There is a specimen from the Liao River, Shingking, in the Kew Herbarium, collected by Ross, which may be this plant.

1. **Raphanus Raphanistrum,** *Linn. Sp. Pl.* ed. 1, p. 669; *DC.*

*Prodr.* i. p. 229; *Lour. Fl. Cochinch.* p. 396; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 200.

COREA (*Carpenter* !); LUCHU ARCHIPELAGO (*Carpenter* !). Herb. Kew.

Europe and North Africa eastward.

[*Raphanus sativus*, Linn., is generally cultivated, and is often found in a wild state. There are some noteworthy Chinese cultivated varieties, one of which is described and figured in Regel's 'Gartenflora,' 1862, p. 407, t. 383. It includes the *R. chinensis*, Mill. Dict. ed. 8, n. 5.]

1. **Chorispora tenella**, *DC. Syst.* ii. p. 435, et *Prodr.* i. p. 186; *Maxim. Ind. Fl. Pekin. in Prim. Fl. Amur.* p. 469.

CHIHLI: near Peking (ex *Maximowicz*).

Asia Minor to Songaria.

[*Ricotia? cantoniensis*, Lour. Fl. Cochinch. p. 397; DC. Prodr. i. p. 157, has not been identified.]

## 12. CAPPARIDEÆ.

1. **Polanisia viscosa**, *DC. Prodr.* i. p. 242; *Seem. Bot. Voy. 'Herald,'* p. 363.

Cleome icosandra, *Linn.*, et viscosa, *Linn. Sp. Pl.* ed. 1, p. 672; *Lour. Fl. Cochinch.* p. 398.

KWANGTUNG: Macao (*Vachell* !), Kowlung (*Seemann* !); Pakhoi (*Playfair* !); HONGKONG (*Lamont* !). Mus. Brit.; Herb. Kew.

Very widely dispersed in warm countries.

1. **Gynandropsis pentaphylla**, *DC. Prodr.* i. p. 238; *Hook. f. Fl. Brit. Ind.* i. p. 171.

Gynandropsis viscida, *Bunge, Enum. Pl. Chin. Bor.* p. 7; *Walp. Rep.* i. p. 93; *Franchet, Pl. David.* p. 41.

Gynandropsis sinica, *Miq. Journ. de Bot. Néerl.* i. p. 128.

CHINA, from Peking southward, and in nearly all warm countries. Mus. Brit.; Herb. Kew.

1. **Capparis flexicaulis**, *Hance in Journ. Bot.* 1878, p. 225.

HAINAN (*Bullock* ex *Hance*).

2. **Capparis membranacea**, *Gard. et Champ. in Hook. Kew*

*Journ. Bot.* i. 1849, p. 241; *Benth. Fl. Hongk.* p. 18; *Hance in Ann. Sc. Nat.* 5e série, v. p. 206.

KWANGTUNG: Whampoa (*Hance*); HONGKONG (*Champion*! *Wright*! *Urquhart*! *Hance*! *Lamont*!). Mus. Brit.; Herb. Kew.

3. **Capparis pumila,** *Champ. in Hook. Kew Journ. Bot.* iii. p. 260; *Walp. Ann.* iv. p. 225; *Benth. Fl. Hongk.* p. 18; *Hook. f. Fl. Brit. Ind.* i. p. 177.

Capparis sciaphila, *Hance in Ann. Sc. Nat.* 5e série, v. p. 206, et in *Journ. Linn. Soc.* xiii. p. 100.

SOUTH CHINA, without locality (*Millet*! *Beechey*!); KWANGTUNG (*Ford*!); HONGKONG (*Hance*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

Sikkim; Khasia.

4. **Capparis sepiaria,** *Linn. Sp. Pl.* ed. 2, p. 720; *DC. Prodr.* i. p. 247; *Hook. f. Fl. Brit. Ind.* i. p. 177, *var.* incanescens.

KWANGTUNG: Pakhoi (*Playfair*, 237!); HAINAN (*Hancock*!). Herb. Kew.

Throughout India and in the Philippines.

5. **Capparis Swinhoii,** *Hance in Journ. Bot.* 1868, p. 296.

Capparis hastigera, *Hance in Journ. Bot.* 1868, p. 296, et 1879, p. 8.

KWANGTUNG: Paksha (*Hance*, hb. 13732), Pakhoi (*Playfair*, 138!); HAINAN (*Swinhoe*! *Hancock*!). Herb. Kew.

[*Capparis cantoniensis,* Lour. (Fl. Cochinch. p. 331; DC. Prodr. i. p. 253), is an altogether doubtful plant.]

1. **Cratæva religiosa,** *Forst. Fl. Ins. Aust. Prodr.* p. 203; *DC. Prodr.* i. p. 243; *Hook. f. Fl. Brit. Ind.* i. p. 172.

KWANGTUNG: Pakhoi (*Playfair*, 137!); HAINAN (*Hancock*!). Herb. Kew.

India and tropical Africa; often cultivated.

*Cratæva falcata* and *C. magna*, DC. Prodr. i. p. 243, syn. *Capparis falcata*, Lour., and *C. magna*, Lour. Fl. Cochinch. p. 331, are probably forms of *C. religiosa.* Hance (Journ. Bot. 1869, p. 41) identifies *C. magna* with *C. Nurvala*, Ham.), which is treated as a variety of *C. religiosa* in the 'Flora of British India.'

## 13. RESEDACEÆ.

*Reseda odorata*, Linn., is recorded by Loureiro as an introduced plant about Canton, and he describes a *Reseda chinensis* (Fl.

Cochinch. p. 299) which cannot, from the description, belong to the Order.

## 14. VIOLARIEÆ.

1. **Viola biflora,** *Linn. Sp. Pl.* ed. 1, p. 936; *DC. Prodr.* i. p. 300; *Hance in Journ. Bot.* 1875, p. 131; *Franchet, Pl. David.* p. 44; *Maxim. in Mél. Biol.* ix. p. 749, non *Baker et S. Moore, in Journ. Linn. Soc.* xvii. p. 379.

CHIHLI, Pohuashan (*Bretschneider*!); KANSUH (*Przewalski* ex *Maximowicz*). Herb. Kew.

Scattered all round the northern hemisphere in cold regions.

2. **Viola bulbosa,** *Maxim. in Mél. Biol.* ix. p. 748.

KANSUH (*Przewalski* ex *Maximowicz*).

3. **Viola canina,** *Linn. Sp. Pl.* ed. 1, p. 935; β. acuminata, *Regel, Pl. Radd.* p. 247; *Maxim. in Mél. Biol.* ix. p. 746, et *Fl. As. Or. Fragm.* p. 4; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 379.

Viola acuminata, *Ledeb. Fl. Ross.* i. p. 252; *Hance in Journ. Bot.* 1875, p. 134; *Franchet, Pl. David.* p. 44.

Viola micrantha, *Turcz. Dec. Pl. Chin. Bor.* p. 4.

CHIHLI: Pohuashan (*Bretschneider*!), Siaowutaishan (*Moellendorff*!); SHINGKING: various localities (*Ross*!); SHANTUNG: Chefoo (*Hancock*!); KIANGSI: Kiukiang (*Shearer*!); COREA (*Carles*, 32!); Laoling (*Webster*!). Mus. Brit.; Herb. Kew.

Temperate regions nearly all round the northern hemisphere.

4. **Viola diffusa,** *Ging. in DC. Prodr.* i. p. 298; *Benth. Fl. Hongk.* p. 20; *Maxim. in Mél. Biol.* ix. p. 735, et *Fl. As. Or. Fragm.* p. 6; *Franchet, Pl. David.* p. 43.

Viola tenuis, *Benth. in Hook. Lond. Journ. Bot.* i. p. 482, et *in Hook. Kew Journ. Bot.* iii. p. 260.

Viola Parkeri, *Champ. in Hook. Kew Journ. Bot.* iii. p. 26 (nomen tantum)?

CHEKIANG: Ningpo (*Everard*!); FORMOSA (*Swinhoe*!); SHENSI: southern part (*David* ex *Franchet*); KWANGTUNG (*Tate*!); HONGKONG (*Hinds*! *Urquhart*! *Champion*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

Himalaya and Khasia mountains.

5. **Viola hirta,** *Linn. Sp. Pl.* ed. 1, p. 934; *Maxim. in Mél. Biol.* ix. p. 737 (varietates): *Franchet, Pl. David.* p. 43.

CHIHLI: Jehol (*David* ex *Franchet*); SHINGKING: Changdien (*Ross*!); COREAN ARCHIPELAGO (*Oldham*, 65!). Herb. Kew.

Europe, Asia Minor, Siberia, Japan.

6. **Viola hirtipes**, *S. Moore in Journ. Linn. Soc.* xvii. p. 379.

SHINGKING: Kwandien mountains (*Ross*!); COREA: Soul mountains (*Carles*!). Herb. Kew.

7. **Viola Hookeri**, *T. Thoms. in Hook. f. Fl. Brit. Ind.* i. p. 183; *Franchet in Bull. Soc. Bot. France*, xxxii. p. 5.

YUNNAN: above Lankong (*Delavay* ex *Franchet*).

Eastern Himalaya.

8. **Viola japonica**, *Langsd.*; *DC. Prodr.* i. p. 295; *Maxim. in Mél. Biol.* ix. p. 724.

Viola japonica, var. pekinensis, *Maxim. Fl. As. Or. Fragm.* p. 4.

Viola kamtschatica, var. pekinensis, *Regel, Pl. Radd.* i. p. 230.

Viola Patrinii, *auct., Fl. Brit. Ind. etc., pro parte.*

CHINA: Peking to the Corea, Luchu, and Formosa, and exceedingly common in Japan, according to Maximowicz, who says of it, with reference to *V. Patrinii*, "sæpissime optime distinguenda;" but we have not found it so. See remarks under *V. Patrinii*.

9. **Viola mongolica**, *Franchet, Pl. David.* p. 43.

CHIHLI: Jehol (*David*, 1737, 1796 bis, ex *Franchet*).

[*Viola odorata*, Linn. (Lour. Fl. Cochinch. p. 513), "in hortis et prope vias," is a very doubtful determination.]

10. **Viola Patrinii**, *DC. Prodr.* i. p. 293; *Benth. Fl. Hongk.* p. 20; *Maxim. in Mél. Biol.* ix. p. 722, et *Fl. As. Or. Fragm.* p. 5 (varietates).

Viola primulifolia, *Lour. Fl. Cochinch.* p. 513, ex specim. in herb. Mus. Brit.

Viola chinensis, *G. Don, Gen. Syst.* i. p. 322.

Viola prionantha, *Bunge, Enum. Pl. Chin. Bor.* p. 8.

Viola Averyi, *Kellogg in Pacif. Rural Press*, 31st May, 1879, et *Bull. Calif. Acad. Sc.* Feb. 1885, p. 131.

CHINA, very common. Mus. Brit.; Herb. Kew.

Nearly all over India, the Amur, Mandshuria, and Japan.

Without specially studying the numerous forms referred to this species and *V. japonica* (and that is beyond the scope of this work), we are unable to say whether the herbarium specimens

represent one very variable or several closely allied species, or what it would be convenient to treat as such.

11. **Viola pinnata**, *Linn. Sp. Pl.* ed. 1, p. 934; *DC. Prodr.* i. p. 292; *Turcz. Fl. Baic. Dah.* i. p. 178 (var. β. dissecta); *Maxim. in Mél. Biol.* ix. p. 717; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 379; *Franchet, Pl. David.* p. 41, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 200.

Viola dissecta, *Ledeb. Fl. Ross.* i. p. 244.

Viola pinnata, δ. chærophylloides, *Regel, Pl. Radd.* i. p. 222.

CHIHLI: Jehol (*David* 1739, ex *Franchet*). Pohuashan (*Bretschneider*!); SHINGKING: Kwandien mountains and Toongdien (*Ross*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); COREA (*Wilford*! *Carles*!); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*!). Herb. Kew.

Alps of Europe, Central and Eastern Asia to Japan.

12. **Viola Raddeana**, *Regel, Pl. Radd.* i. pp. 251 et 256, t. 7. figg. 1–5.

COREA (*Carles*!). Herb. Kew.

Amur.

13. **Viola (§ Nomimium) Rossii**, *Hemsl.*

*Rhizoma* hypogæa crassiuscula. *Folia* longe petiolata, mollia, late cordata, absque petiolo usque ad 2 poll. longa lataque, sinu aperto, crebre serrato-denticulata, acuminata, vix acuta, utrinque præcipue subtus parce puberula, stipulis integris fere liberis. *Flores* imberbi, circiter pollicares, pedunculis cum foliis subæquilongis, bracteis subintegris amplectentibus longe acuminatis; sepala glabra, ovato-oblonga vix acuta, appendicibus rotundatis vel truncatis latioribus paucidenticulatis; petala obovato-spathulata, calcari brevi lato scrotiformi; staminum 2 anteriorum appendices dorsales subæqualiter triangulares, apice obtusæ, incrassatæ; connectivorum squamæ scariosæ, latæ, obtusæ; ovarium glabrum, acutum, stylo breviter exserto basi leviter constricto, stigmate breviter rostrato. *Capsula* non visa.

SHINGKING: Kwandien and Changdien (*Ross*!); KIANGSU: Chinkiang (*Maries*!); KIANGSI: Lushan mountains, Kiukiang (*Maries*!); COREA: Soul mountains (*Carles*!). Herb. Kew.

An imperfect specimen of this species was sent to Mr. Maximowicz, who suggested it might be a variety of his *V. Bisseti*, a

native of Japan; but the latter has oblong-cordate leaves with an almost closed sinus, and about ten or twelve distant teeth on each side of the blade. Further, the dorsal appendage of the two anterior stamens is constricted in the middle, and the rounded end is as broad as or broader than the point of attachment. In *V. Rossii* the broadly cordate leaves have a wide sinus and from twenty to twenty-five teeth on each side of the blade, whilst the nearly equally triangular dorsal appendage of the two anterior stamens terminates in a small knob.

14. **Viola Selkirkii**, *Pursh* ex *Goldie in Edinb. Phil. Journ.* 1822, p. 324; *DC. Prodr.* i. p. 305; *Maxim. in Mél. Biol.* ix. p. 730; *Franchet, Pl. David.* p. 42.

Viola umbrosa, *Fries, Novit.* p. 271.

Viola kamtschatica, *Ging. in Linnæa*, i. p. 406.

CHIHLI: Jehol (*David* ex *Franchet*); COREA: northern frontier (ex *Maximowicz*).

North Europe eastward to Japan and in North America.

15. **Viola serpens**, *Wall. in Roxb. Fl. Ind. ed. Carey*, ii. p. 449; *DC. Prodr.* i. p. 296; *Hook. f. Fl. Brit. Ind.* i. p. 184 (varietates); *Maxim. in Mél. Biol.* ix. p. 739.

Viola confusa, *Champ. in Hook. Kew Journ. Bot.* iii. p. 260; *Walp. Ann.* iv. p. 233; *Benth. Fl. Hongk.* p. 20.

KWANGTUNG: near Canton (*Hance*!), Pakhoi (*Playfair*!); HONGKONG (*Champion*!). Herb. Kew.

Mountains of India, Ceylon, and Java.

*Viola inconspicua*, Blume (Bijdr. p. 58), formerly supposed to be Chinese and probably the same as *V. confusa*, Champ., inhabits the mountains of Java and not China.

16. **Viola sylvestris**, *Kit. in Schult. Œstr. Fl.* i. p. 423, γ. grypoceras, *Maxim. in Mél. Biol.* ix. p. 743.

Viola grypoceras, *A. Gr. in Perry Exped.* p. 308.

Viola sylvatica, var. imberbis, *A. Gr. Bot. Jap.* 382.

Viola Grayi, *Franch. et Sav. Enum. Pl. Jap.* ii. p. 288; *Franch. Pl. David.* p. 43.

CHINA, without locality (*Fortune* 23 !); KIANGSU: Fengwangshang (*hb. Forbes* !); SHENSI: in the south (*David* ex *Franchet*). Mus. Brit.; Herb. Kew.

Europe, Asia, and North America.

[In the British Museum is a specimen of *V. tricolor*, L., from Hongkong, collected by Lamont.]

17. **Viola uniflora**, *Linn. Sp. Pl.* ed. 1, p. 936; *DC. Prodr.* i. p. 301; *Maxim. in Mél. Biol.* ix. p. 751.

Viola biflora, var., *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 379.

SHINGKING: Fungwangchung and Corean Gate (*Ross*!); COREA (*Carles*!); Laoling (*Webster*!). Herb. Kew.

Baical to Japan.

We have followed Maximowicz in referring this Violet to *uniflora*, though it is intermediate between that and *V. glabrella*, Nutt., a North-American species.

18. **Viola variegata**, *Fisch. in DC. Prodr.* i. p. 293; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 379; *Franchet, Pl. David.* p. 42, *cum var.* chinensi; *Maxim. in Mél. Biol.* ix. p. 728.

CHIHLI: Peking (*David* 1738, 2400, ex *Franchet*); SHINGKING: Fungwangchung and Corean Gate (*Ross*!); SHENSI: in the south (*David*, 1738 ex *Franchet*); COREA (*Carles*!). Herb. Kew.

19. **Viola verecunda**, *A. Gr. Bot. Jap.* p. 382; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 379; *Maxim. in Mél. Biol.* ix. p. 7, γ. excisa.

Viola excisa, *Hance in Journ. Bot.* 1868, p. 296.

FORMOSA: Tamsui (*Oldham*, 20!); FOKIEN: Amoy (*Swinhoe*!), without locality (*Tate*!); KWANGTUNG: foot of the White Cloud Hill (*Sampson*!). Mus. Brit.; Herb. Kew.

Japan.

20. **Viola Websteri**, *Hemsl.*, n. sp.

Caulescens, puberula, caulibus ut videtur simplicibus adscendentibus pedalibus basi aphyllis vaginis membranaceis instructis. *Folia* breviter petiolata, anguste lanceolata, circiter 3 poll. longa, utrinque valde attenuata, acuta, remotiuscule argute-serrata, glabrescentia, venis primariis paucis apicem versus excurrentibus; stipulæ usque ad 1 poll. longæ plus minusve fimbriato-pinnatifidæ. *Flores* unicolores, parvi (6–9 lineas diametro), axillares, solitarii; pedicelli graciles quam folia paullo breviores bracteis minutis supra medium instructi; sepala angustissima, acutissima, petalis paullo breviora, basi breviter producta, truncata; petala subæqualia, obovato-spathulata, apice rotundata, imberbia, calcari brevissimo lato; antherarum appendices dorsales crassiusculæ obtusæ; stylus staminibus vix longior, stigmate parvo nudo; ovarium glabrum. *Capsula* deest.

CoREA: Laoling (*Webster* !). Herb. Kew.

There are imperfect specimens in the Kew Herbarium from North China of several other species of *Viola*.

1. **Ionidium suffruticosum**, *Ging. in DC. Prodr.* i. p. 311; *Hook. f. Fl. Brit. Ind.* i. p. 185; *Hance, in Journ. Bot.* 1879, p. 8.

HAINAN (*Bullock* ex *Hance*).

Tropical Asia, Africa, and Australia.

## 15. BIXINEÆ.

1. **Scolopia crenata,** *Clos in Ann. Sc. Nat.* 4e série, viii. p. 250; *Walp. Ann.* vii. p. 227; *Benth. Fl. Hongk.* p. 19; *Hook. f. Fl. Brit. Ind.* i. p. 191.

Phoberos chinensis, *Lour. Fl. Cochinch.* p. 318.

Phoberos Arnottianus, *Hance, Advers.* p. 8.

Phoberos sævus, *Hance in Walp. Ann.* iii. p. 825.

Scolopia chinensis *et* S. acuminata, *Clos, loc. cit.* pp. 249 & 251; *Hance in Journ. Linn. Soc.* xiii. p. 100 (species propriæ).

Scolopia Oldhami, *Hance in Ann. Sc. Nat.* 5e série, v. p. 206.

FORMOSA (*Oldham*, 21 and 22 !); KWANGTUNG and HONGKONG: common. Mus. Brit.; Herb. Kew.

Cochinchina, Western Peninsula of India, Ceylon, and the Philippines.

1. **Xylosma racemosum,** *Miq. in Ann. Mus. Bot. Lugd. Bat.* ii. p. 155.

Hisingera racemosum, *Sieb. et Zucc. Fl. Jap.* i. p. 169, t. 88, et p. 189, t. 100.

Xylosma japonicum, *A. Gr. in Mem. Am. Acad.* n. s. vi. p 381; *Hance in Journ. Bot.* 1870, p. 275, et 1878, p. 8.

Hisingera japonica, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* i. p. 60, excl. cit. pro nomine.

Flacourtia chinensis, *Clos in Ann. Sc. Nat.* 4e série, viii. p. 219; *Walp. Ann.* vii. p. 228.

CHINA, without locality (*Fortune*, 135 !); FOKIEN: Amoy (*Hance*, 1478 !); KWANGTUNG: Canton (*Sampson* !). Mus. Brit.; Herb. Kew.

Japan.

2. **Xylosma senticosum**, *Hance in Journ. Bot.* 1868, p. 328; *Journ. Linn. Soc.* xiii. p. 100.

SHENSI (*Piasezki* ex *Maximowicz MSS.*); HONGKONG: Victoria Peak (*Hance*, 7437!). Herb. Kew.

There are imperfect specimens in the Kew Herbarium of two other Bixineæ, possibly species of *Xylosma*: one, collected by Parkes, without locality; the other from the Gorge of Ichang, Hupeh, collected by Maries.

## 16. PITTOSPOREÆ.

1. **Pittosporum glabratum**, *Lindl. in Journ. Hort. Soc. Lond.* i. (1846) p. 230 adn.; *Walp. Ann.* i. p. 77; *Benth. Fl. Hongk.* p. 19.

Pittosporum Fortunei, *Turcz. in Bull. Soc. Imp. Mosc.* 1863, p. 562.

CHEKIANG: Ningpo (*Everard*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Fortune*, A. 126!); HONGKONG (*Lamont*! *Wilford*! *Champion*!). Mus. Brit.; Herb. Kew.

Khasia hills.

2. **Pittosporum pauciflorum**, *Hook. et Arn. Bot. Beech. Voy.* p. 168, t. 32.

CHINA, without locality (*Beechey*!); KIANGSI: Kiukiang (*Shearer*! *Maries*!). Herb. Kew.

The Kiukiang specimens are doubtful.

3. **Pittosporum pauciflorum** β?, *Hook. et Arn. Bot. Beech. Voy.* p. 259 pro parte.

LUCHU ARCHIPELAGO (*Beechey*!); Oosima (*Carpenter*!). Herb. Kew.

There are specimens from the Bonin Islands on the same sheet which probably belong to a different species, and none of them are of the same species as typical *pauciflorum*; but the material is insufficient to characterize the species satisfactorily, especially as there are one or two closely allied species in India.

4. **Pittosporum Tobira**, *Ait. Hort. Kew.* ed. 2, ii. p. 27; *Bot. Mag.* t. 1396.

CHINA: without locality (*Beechey*!); KIANGSU (*Poli* ex *Franchet MSS.*); FORMOSA: Tamsui (*Oldham*, 20/*a*!); FOKIEN: Amoy (*Fortune*, A. 70!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan.

## 17. POLYGALEÆ.

1. **Salomonia aphylla**, *Griff. in Trans. Linn. Soc.* xix. p. 342; *Hook. f. Fl. Brit. Ind.* i. p. 207; *Hance in Journ. Bot.* 1885, p. 321.

Salomonia parasitica, *Griff. Notul.* iv. p. 538.

Epirhizanthes tenella, *Hook. f. in Trans. Linn. Soc.* xxiii. p. 158.

Epirhizanthes, *Blume, Cat. Gewass. Buitenz.* p. 25.

KWANGTUNG: Lofaushan (*Ford!*). Herb. Kew.

Malacca; Java; Borneo.

2. **Salomonia cantoniensis**, *Lour. Fl. Cochinch.* p. 14; *DC. Prodr.* i. p. 334; *Benth. Fl. Hongk.* p. 44; *Hook. f. Fl. Brit. Ind.* i. p. 206; *Seem. Bot. Voy. 'Herald,'* p. 364.

KWANGTUNG: Whampoa (*Hance!*), Lofaushan (*Ford!*); HONGKONG (*Champion! Wright! Seemann!*). Mus. Brit.; Herb. Kew.

Assam, through the Malayan peninsula and archipelago.

3. **Salomonia oblongifolia**, *DC. Prodr.* i. p. 334; *Benth. Fl. Hongk.* p. 44; *Hook. f. Fl. Brit. Ind.* i. p. 207.

HONGKONG (*Hance!*). Herb. Kew.

Widely spread in India and through the Malayan archipelago to Australia.

1. **Polygala arillata**, *Ham. in Don, Prod. Fl. Nep.* p. 199; *Wall. Pl. As. Rar.* t. 100; *Benth. Fl. Hongk.* p. 45; *Hook. f. Fl. Brit. Ind.* i. p. 200.

HONGKONG (*Champion! Wright! Wilford!*). Herb. Kew.

The Himalaya and Khasia mountains, to Ceylon and the Malay archipelago.

All the Hongkong specimens referred to this species are remarkable for having solitary, long, terminal racemes of flowers, and possibly represent a different species.

[*Polygala chinensis*, Linn. Sp. Pl. ed. 1, p. 704, is only recorded as an Indian plant by the author; and in the 'Flora of British India' its range is described as "Tropical Asia and Australia." Whether it grows in China is uncertain; and the Chinese species generally require revision.]

2. **Polygala fallax**, *Hemsl.*, n. sp.

*Frutex?* ramis teretibus puberulis. *Folia* petiolata, membranacea, sparse puberula, elliptico-lanceolata, 5–7 poll. longa, usque

ad 1¾ poll. lata, utrinque attenuata, acuta, integra. *Flores* 6–9 lineas longi, in racemos axillares erectos 3–4 poll. longos dispositi, pedicellis puberulis patentibus circiter 3 lineas longis, bracteis deciduis lineari-oblongis pedicellos æquantibus; sepala 3 exteriora colorata, decidua, ciliolata, inæqualia, posticum inverso-galeatum vel galeiformi-saccatum, acutum, antica oblique ovato-rotundata; sepala 2 interiora leviter oblique obovata, petala æquantia; petala lateralia (postica) oblonga cum carina alte connata, apice fere truncata, basi in sepalum galeatum unilateraliter producta, simul breviter semicalcarata vel semisaccata, intus basi hirsutula; carina galeata dorso cum crista stipitata ampla fimbriata ornata; ovarium valde compressum, ciliatum. *Capsula* deest.

FOKIEN: Amoy interior (*Swinhoe*!). Herb. Kew.

In foliage and inflorescence this so closely resembles *Polygala venenosa*, Juss., as to be easily mistaken for it, in a dried state at least. In floral structure, however, it is nearer *P. arillata*, Ham., differing mainly in its stipitate multifid crest. How far the modifications of the crest may be used for specific characters we cannot judge from the few we have examined; but in *P. venenosa* it is sinuate and scarcely divided, and in an apparently undescribed species from Bhotan in the Kew Herbarium it is multilamellate.

3. **Polygala glomerata**, *Lour. Fl. Cochinch.* p. 426; *DC. Prodr.* i. p. 326; *Benth. Fl. Hongk.* p. 44; *A. W. Benn. in Hook. f. Fl. Brit. Ind.* i. p. 206.

KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Lamont*! *Wright*! *Champion*! *Wilford*!). Mus. Brit.; Herb. Kew.

Eastern Himalaya southward through the Malay peninsula.

4. **Polygala hongkongensis**, *Hemsl.*, n. sp. (Plate II. A. figg. 1–6.)

*Suffrutex* 6–18 poll. altus, fere omnino glaber vel glabrescens, ramis teretibus gracillimis. *Folia* sparsa, brevissime petiolata, crassiuscula, venis immersis obsoletis, lanceolata vel ovato-lanceolata, usque ad 2 poll. longa, vix acuta, integerrima, margine leviter incrassato, subtus pallidiora. *Flores* circiter 4 lineas longi in racemos terminales folia paullo superantes dispositi; bracteæ parvæ, ante anthesin deciduæ; sepala 3 exteriora persistentia, anguste arcuato-navicularia, ciliolata, dorso paullo infra apicem breviter cornuta; sepala 2 interiora petaloidea leviter oblique obovato-oblonga, petalis lateralibus longiora; petala 2 lateralia (posteriora) sinuata, apice rotundata, medio attenuata, intus deorsum hirsutula; carina sublibera, anguste unguiculata, cucul-

lata, cristam amplam multiramosam gerens; vagina staminea lata, petalis lateralibus medio adnata; ovarium glabrum, breviter stipitatum, stylo complanato valde arcuato. *Capsula* deest.—P. Loureirii, *Gard. et Champ. in Hook. Kew Journ. Bot.* i. (1849) p. 242, *pro parte, non* P. sibirica β, *Lour. Fl. Cochinch.* p. 426; P. elegans, *Benth. Fl. Hongk.* p. 44, *pro parte.*

HONGKONG (*Champion! Wright! Lamont!*). Mus. Brit.; Herb. Kew.

It is singular that this very distinct species should have been confused with *P. sibirica* in both Champion and Wright's collections, especially as we have seen no other specimens of either species from Hongkong. Gardner and Champion's description is in part a fusion of the characters of the two; whilst in Bentham's description the differential characters are neglected.

*P. hongkongensis* is readily distinguished by the obsolete venation of its glabrous leaves: and it also differs in its horned outer sepals and free keel-petal.

5. **Polygala Mariesii**, *Hemsl.*, n. sp. (Plate II. B. figg. 7–13.)

*Frutex* fere omnino glaber, ramis teretibus gracilibus, apice tantum foliiferis, cortice albicante. *Folia* petiolata, subcoriacea, elliptico-lanceolata, 2–4 poll. longa, usque ad 1 poll. lata, utrinque longe attenuata, apice cuspidata, subsinuata, subtus pallidiora, venis transversis primariis utrinque circiter 10 prope marginem anastomosantibus. Flores, ut videtur, flavi, circiter 9 lineas longi, longiuscule pedicellati, racemosi, racemis in apicibus ramorum aggregatis quam folia brevioribus, bracteis minutis cito deciduis; sepala 3 exteriora suborbicularia, ciliolata; sepala 2 interiora petaloidea, obovato-oblonga, obscure ciliolata, petala fere æquantia; petala lateralia truncata cum carina usque ad cucullum connata; carina breviter cucullata, dorso crista incrassata vel subcarnosa, bisaccata munita; ovarium glabrum, breviter stipitatum, disco cylindrico. *Capsula* compresso-clavata, seminibus pilosis.

HUPEH: Ichang Gorge (*Maries! A. Henry!*). Mus. Brit.; Herb. Kew.

Allied to *P. Wattersii*, Hance, which has very much smaller flowers and veinless leaves, and to *P. karensium*, Kurz, which has a branched crest.

6. **Polygala sibirica**, *Linn. Sp. Pl.* ed. 1, p. 702; *DC. Prodr.* i. p. 324; *A. W. Benn. in Journ. Bot.* 1878, p. 277; *Hance in Journ. Bot.* 1882, p. 257.

Polygala japonica, *Houtt. Syst.* p. 8, t. 62. fig. 1; *DC. Prodr.* i. p. 324; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 379; *Maxim. Fl. As. Or. Fragm.* p. 6; *Franchet, Pl. David.* p. 45.

Polygala Loureirii, *Gardn. et Champ. in Hook. Kew Journ. Bot.* i. (1849) p. 242, pro parte.

Polygala elegans, *Benth. Fl. Hongk.* p. 44, pro parte.

CHINA: Chihli to Hongkong and Formosa, common in the northern part of its area; and in the Corea. Mus. Brit.; Herb. Kew.

Siberia to Japan; mountains of North and South India; and in Australia.

7. **Polygala Tatarinowii,** *Regel in Bull. Soc. Mosc.* xxxiv. 2. p. 523; *Franchet, Pl. David.* p. 45.

NORTH CHINA (*Tatarinow* ex *Regel*); CHIHLI: Peking mountains (*David*, 2439, ex *Franchet*).

8. **Polygala telephioides,** *Willd. Sp. Pl.* iii. p. 876; *Hook. f. Fl. Brit. Ind.* i. p. 205.

Polygala cyanolopha, *Hance in Journ. Bot.* 1866, p. 117.

KWANGTUNG: Danes' Island, Whampoa (*Hance*, 12330); HONGKONG (*Lamont*! *Ford*!). Mus. Brit.; Herb. Kew.

Western peninsula of India, Malay archipelago, and Philippines.

9. **Polygala tenuifolia,** *Willd. Sp. Pl.* iii. p. 879; *DC. Prodr.* i. p. 324; *Maxim. Fl. As. Or. Fragm.* p. 6.

Polygala sibirica, *Linn.*, β. angustifolia, *Ledeb. Fl. Ross.* i. p. 269; *Franchet, Pl. David.* p. 44.

Polygala sibirica, *Linn.*, var. stricta, *Debeaux, Fl. Tchef.* p. 28; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 201.

Polygala sibirica, *Linn.*, var. tenuifolia, *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 379.

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Bushell*! *Williams*!); SHINGKING: Chienshan and Jaoling (*Ross*!), Moukden (*Webster*!); SHANTUNG: Chefoo (*Perry*! *Hancock*!). Mus. Brit.; Herb. Kew.

Altai; Mongolia; Amur.

10. **Polygala triphylla,** *Ham. in Don, Prodr. Fl. Nep.* p. 200; *Walp. Rep.* i. p. 234; *Hook. f. Fl. Brit. Ind.* i. p. 201; *Franchet, in Bull. Soc. Bot. France*, xxxii. p. 5.

YUNNAN: mountain above Lankong (*Delavay* ex *Franchet*); COREA (*Carles*!). Herb. Kew.

Khasia mountains and Central India to Ava and Birma.

11. **Polygala Wattersii**, *Hance in Journ. Bot.* 1881, p. 209, et 1882, p. 3.

HUPEH: Ichang (*Watters* ex *Hance*); KWANGTUNG: Lienchau river (*B. C. Henry*!). Herb. Kew.

1. **Securidaca tavoyana**, *Wall. Cat.* p. 4196; *A. W. Benn. in Hook. f. Fl. Brit. Ind.* i. p. 208.

Securidaca scandens, *Ham.*; *Benth. Fl. Hongk.* p. 45, *non Jacq.*

HONGKONG (*Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

Silhet to Rangoon and Java.

## 18. CARYOPHYLLEÆ.

1. **Dianthus barbatus**, *Linn. Sp. Pl.* ed. 1, p. 409; *DC. Prodr.* i. p. 355; *Rohrb. in Linnæa*, xxxvi. p. 667 (varietates).

Dianthus japonicus, *Thunb. Fl. Jap.* p. 183, t. 23.

Dianthus pulcherrimus, *Lois. in Herb. Amat.* n. 460, *et in Dict. Sc. Nat.* xxxv. p. 417; *Fl. des Serres*, t. 1172.

NORTH CHINA. Probably only under cultivation. Mus. Brit.; Herb. Kew.

We have followed Rohrbach in uniting the Japanese plant and the reputed Chinese *D. pulcherrimus* with the European *D. barbatus*.

[*D. Caryophyllus*, Linn., is recorded by Loureiro as a cultivated plant in China; and *D. arbuscula*, Lindl. (Bot. Reg. t. 1086) is a semi-double form of that affinity received from China.]

2. **Dianthus chinensis**, *Linn. Sp. Pl.* ed. 1, p. 411; *DC. Prodr.* i. p. 359; *Bot. Mag.* t. 25, et t. 5536 (var. laciniata); *Rohrb. in Linnæa*, xxxvi. p. 670 (sinensis), varietates.

Dianthus Seguieri, *Chaix in Vill. Fl. Dauph.* i. p. 330; *Maxim. Fl. As. Or. Fragm.* p. 6; *Franchet, Pl. David.* p. 45.

Dianthus Schraderi, *Reichb. Iconogr. Exot.* p. ix, t. 35.

Dianthus Fischeri, *Spreng.*; *Bunge, Enum. Pl. Chin. Bor.* p. 8.

NORTH CHINA, common. Mus. Brit.; Herb. Kew.

South of Europe to North-west India, and eastward through Central Asia to Japan.

3. **D. longicalyx**, *Miq. Journ. de Bot. Néerl.* i. p. 127.

KWANGTUNG: Fookwing (*Krone* ex *Miquel*).

4. **Dianthus Morrisii**, *Hance in Hook. Lond. Journ. Bot.* vii. p. 472; *Seem. Bot. Voy. 'Herald,'* p. 364.

Tunica Morrisii, *Walp. Ann.* ii. p. 101.

KWANGTUNG: Lintin Island (*Morris* ex *Hance*).
Seemann says, "This is doubtless *D. Caryophyllus*, Linn."

5. **Dianthus superbus**, *Linn. Amœn. Acad.* iv. p. 272; *DC. Prodr.* i. p. 365; *Hance in Journ. Bot.* 1883, p. 296; *Franchet, Pl. David.* p. 46, *et in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 202.

Dianthus oreadum, *Hance in Ann. Sc. Nat.* 5ᵉ série, v. p. 207.

CHINA, common in the northern provinces, and extending southward to Kwangtung. Mus. Brit.; Herb. Kew.

Europe to Mongolia, Sachalin, and Japan.

1. **Gypsophila acutifolia**, *Fisch. Hort. Gorenk.* 1812, p. 59; *DC. Prodr.* i. p. 353; *Boiss. Fl. Orient.* i. p. 540; *Regel in Radd. Reise*, i. p. 294 (var. chinensis); *Franchet, Pl. David.* p. 47; *Debeaux, Fl. Tchef.* p. 29; *Rohrb. in Linnæa*, xxxvi. p. 674.

NORTH CHINA, without locality (*Tatarinow*!); CHIHLI: Jehol (*David*, 2097!); SHANTUNG: Chefoo (ex *Debeaux*); KANSUH: south of the Hoangho (*Piasezki*, *Maximowicz MSS.*). Herb. Kew.

Caucasus eastward through Siberia.

2. **Gypsophila Oldhamiana**, *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 187; *Prol. Fl. Jap.* p. 351; *Rohrb. in Linnæa*, xxxvi. p. 675.

SHINGKING: Chienshan (*Ross*, 258!); SHANTUNG: Chefoo (*hb. Forbes*!); COREAN ARCHIPELAGO: Kuper Harbour (*Oldham*, 76!). Herb. Kew.

1. **Saponaria Vaccaria**, *Linn. Sp. Pl.* ed. 1, p. 409; *DC. Prodr.* i. p. 365; *Hance in Journ. Bot.* 1878, p. 225, et 1883, p. 296; *Maxim. Fl. As. Or. Fragm.* p. 6; *Franchet, Pl. David.* p. 47.

NORTH CHINA, common. Herb. Kew.

A weed of cultivation, ranging from south-western Europe to North-western India, and through Siberia to Japan.

1. **Silene aprica**, *Turcz. in Fisch. et Mey. Ind. Sem. Hort. Petrop.* p. 38, *et Fl. Baical-Dahur.* i. p. 209; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 380; *Rohrb. in Linnæa*, xxxvi. p. 684 (sensu latiore).

Silene Oldhamiana, *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 187; *Hance in Journ. Bot.* 1879, p. 8.

Silene firma, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 58; *Franchet, Pl. David.* p. 50, *et in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 201.

Silene melandryiformis, *Maxim. Prim. Fl. Amur.* p. 54.

Melandryum apricum, *Rohrb. in Linnæa*, xxxvi. p. 239.

Melandryum firmum et M. Oldhamianum, *Rohrb. Monogr. Silene*, pp. 232 et 233, *et in Linnæa*, p. 241.

NORTH CHINA, common. Mus. Brit.; Herb. Kew.

Mongolia to Mandshuria, and Japan.

2. **Silene conoidea**, *Linn. Sp. Pl.* ed. 1, p. 418; *DC. Prodr.* i. p. 371; *Hook. f. Fl. Brit. Ind.* i. p. 218; *Rohrb. Monogr. Silene*, p. 92; *Franchet, Pl. David.* p. 47.

SHENSI: Hantsongfou (*David* ex *Franchet*), Tsuñglin range (*Piasezki* ex *Maximowicz*).

Western Europe and North Africa to Japan.

3. **Silene Fortunei**, *Vis. Ind. Hort. Patav.* 1847, ex *Linnæa*, xxiv. p. 181; *Rohrb. Monogr. Silene*, p. 222, et *in Linnæa*, xxxvi. p. 688; *Maxim. Fl. As. Or. Fragm.* p. 6; *Franchet, Pl. David.* p. 47.

CHINA, without locality (*Fortune*, 36! *Jacob*! *Home*!); CHEKIANG (*Staunton*!); CHUSAN (*Fortune*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA, without locality (*Oldham*, 24!); Tamsui (*Hancock*!), beach on the north-west coast (*Wilford*!). Mus. Brit.; Herb. Kew.

4. **Silene Tatarinowii**, *Regel in Bull. Soc. Nat. Mosc.* 1861, ii. p. 563; *Rohrb. Monogr. Silene*, p. 131, et *in Linnæa*, xxxvi. p. 681; *Franchet, Pl. David.* p. 48 (varietates).

NORTH CHINA, without locality (*Tatarinow*!); CHIHLI: near Peking (*Bretschneider*! *Bushell*!), Jehol (*David*, 428, ex *Franchet*). Herb. Kew.

1. **Lychnis apetala**, *Linn. Sp. Pl.* ed. 1, p. 437; *DC. Prodr.* i. p. 386; *Hance in Journ. Bot.* 1878, p. 104.

Physolychnis apetala, *Rohrb. in Linnæa*, xxxvi. p. 679.

CHIHLI: Siaowutaishan (*Hancock* ex *Hance*).

North Europe, Asia, and America.

2. **Lychnis Bungeana**, *Fisch. in Bot. Reg.* t. 1864; *Rohrb. in Linnæa*, xxxvi. pp. 187 et 678.

Agrostemma Bungeana, *D. Don in Sweet Fl. Gard.* ser. 2, t. 317; *Bot. Mag.* t. 3594.

CHIHLI: Peking, cultivated (*Bunge*!). Herb. Kew.

3. **Lychnis coronata**, *Thunb. Fl. Jap.* p. 187 (1784); *Rohrb. in Linnæa*, xxxvi. pp. 186 et 678; *Lodd. Bot. Cab.* t. 1433; *Bot. Mag.* t. 223.

Lychnis grandiflora, *Jacq. Collect.* i. p. 149 (1786), *et Pl. Rar.* t. 84; *DC. Prodr.* i. p. 386; *Fl. des Serres*, t. 979; *Hance in Journ. Bot.* 1874, p. 259; *Maxim. Fl. As. Or. Fragm.* p. 6.

Agrostemma grandiflora, *Döll, Rheinische Fl.* p. 643, in Anmerk.

Agrostemma Banksia, *Meerb. Pl. Sel. Ic.* t. 28.

Hedona sinensis, *Lour. Fl. Cochinch.* p. 286.

CHINA: without locality (*Fortune*, 10!); CHEKIANG: Ningpo (*hb. Forbes*!); KIANGSI: Kiukiang (*Shearer*!). Mus. Brit.; Herb. Kew.

Japan.

4. **Lychnis fulgens**, *Fisch.*; *Bot. Mag.* t. 2104; *Bot. Reg.* t. 478; *DC. Prodr.* i. p. 386; *Rohrb. in Linnæa*, xxxvi. pp. 183 et 676 (varietates); *Franchet, Pl. David.* p. 50.

Agrostemma fulgens, *Döll, Rheinische Fl.* p. 643, in Anmerk.

Lychnis cognata, *Maxim. in Prim. Fl. Am.* p. 55, in adnot.

Lychnis Sieboldii, *Van Houtte, Fl. des Serres*, t. 980, *non Maxim.*

CHIHLI: Jehol and Pohuashan (*David*, 2098!). Herb. Kew.

Dahuria to Japan.

*L. Haageana*, Lemaire, Illustr. Hort. 1859, t. 195, is a reputed hybrid between *L. fulgens* and *L. coronata*.

5. **Lychnis Senno**, *Sieb. et Zucc. Fl. Jap.* i. p. 98, t. 49; *Belg. Hort.* 1864, p. 162, t. 11; *Rohrb. in Linnæa*, xxxvi. pp. 188 et 678.

CHIHLI: Peking (*Bretschneider*!); KIANGSI: Kiukiang (*hb. Forbes*!). Mus. Brit.; Herb. Kew.

Japan.

1. **Cerastium arvense**, *Linn. Sp. Pl.* ed. 1, p. 438; *DC. Prodr.* i. p. 419; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469, et *in Mél. Biol.* ix. p. 53.

NORTH CHINA (ex *Maximowicz*).

Widely diffused in the cold and temperate regions of the northern hemisphere, and reappearing in Chili and Fuegia.

"*Cerastium repens*, Linn.," Lour. Fl. Cochinch. p. 284, may be this.

2. **Cerastium melanandrum**, *Maxim. in Mél. Biol.* x. p. 580.

KANSUH (*Przewalski* ex *Maximowicz*).

3. **Cerastium pilosum,** *Ledeb. in Mém. Acad. Pétersb.* v. p. 539; *Fl. Alt.* ii. p. 178; *Fl. Ross.* i. p. 398, *et Ic. Pl. Fl. Ross.* t. 351.

COREA: Toonghwasien (*Webster*!). Herb. Kew.

Ural to Mandshuria.

4. **Cerastium triviale,** *Link, Enum. Pl. Hort. Berol.* i. p. 433.

Cerastium vulgatum *et* C. viscosum, *auctor. nonnull.*

SHINGKING: Chienshan (*Ross*!); KIANGSU: Fengwangshan (*hb. Forbes*!); COREA (*Carles*!). Herb. Kew.

1. **Stellaria aquatica,** *Scop. Fl. Carniol.* ed. 2, i. p. 319; *Benth. Fl. Hongk.* p. 21; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 380.

Cerastium aquaticum, *Linn. Sp. Pl.* ed. 1, p. 439.

Larbrea aquatica, *Ser. in DC. Prodr.* i. p. 395, et iii. p. 366, *non St.-Hil.*

Malachium aquaticum, *Fries, Nov.* ed. 2, p. 122; *Maxim. in Mél. Biol.* p. 54; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 202.

Myosoton aquaticum, *Mœnch.*; *Franchet, Pl. David.* p. 53.

Cerastium petiolare, *Hance in Hook. Kew Journ. Bot.* i. p. 143.

Stellaria fecunda, *Hance in Walp. Ann.* ii. p. 95.

CHINA, common. Mus. Brit.; Herb. Kew.

Very widely spread in the north temperate and subtropical regions of the Old World.

2. **Stellaria chinensis,** *Regel in Pl. Radd.* i. p. 402, in Anmerk.; *Maxim. in Mél. Biol.* ix. p. 49; *Hance in Journ. Bot.* 1882, p. 258.

Stellaria undulata, *Thunb.*?, *Regel in Pl. Radd.* i. p. 401.

NORTH CHINA, without locality (*Tatarinow*!); KIANGSI: Kiukiang (*Shearer*!); ANWHEI: Wuhu (*Bullock* ex *Hance*), Chinkiang (*Bullock*! in herb. Forbes), Chinkiang or Kiukiang (*Maries*!). Herb. Kew.

3. **Stellaria Davidi,** *Hemsl.*

Kraschenínikowia Davidi, *Franchet, Pl. David.* p. 51, t. 10 (varietates).

CHIHLI: Jehol (*David*, 1924!). Herb. Kew.

4. **Stellaria dichotoma,** *Linn. Sp. Pl.* ed. 1, p. 411; *DC. Prodr.* i. p. 397; *Maxim. in. Mél. Biol.* ix. p. 44 (*α.* cordifolia, *Bunge, Verzeich. Altai-Geb. Pfl.* p. 34, *et β.* heterophylla, *Fenzl in Ledeb. Fl. Ross.* i. p. 379); *Franchet, Pl. David.* p. 53.

NORTH CHINA, without locality (ex *Maximowicz*); CHIHLI: Pohuashan (*David* ex *Franchet*).

From the Ural eastward through Siberia and Mongolia.

5. **Stellaria discolor**, *Turcz. Fl. Baical.-Dahur.* i. p. 230; *Franchet, Pl. David.* p. 52.

CHIHLI: Jehol (*David*, 1881, ex *Franchet*).

Dahuria eastward.

6. **Stellaria diversifolia**, *Maxim. in Mél. Biol.* ix. p. 44; *Franchet, Pl. David.* p. 52 (var. gymnandra).

SHENSI: cultivated places in the south (*David* ex *Franchet*).

Japan.

7. **Stellaria graminea**, *Linn. Sp. Pl.* ed. 1, p. 422; *DC. Prodr.* i. p. 397; *Maxim. in Mél. Biol.* ix. p. 48 (β. lanceolata, *Fenzl*); *Franchet, Pl. David.* p. 53.

NORTH CHINA, without locality (*Kirilow* ex *Maximowicz*).

Temperate and arctic Europe to Tibet and Mandshuria.

8. **Stellaria heterophylla**, *Hemsl.*

Krascheninikowia heterophylla, *Miq. in Ann. Mus. Bot. Lugd. Bat.* iii. p. 187, et *Prol. Fl. Jap.* p. 351; *Maxim. in Mél. Biol.* ix. p. 40.

COREAN ARCHIPELAGO: Port Hamilton (*Wilford*, 712!), Sontsik Group (*Oldham*, 80!). Herb. Kew.

Japan.

9. **Stellaria leptophylla**, *Hance in Walp. Ann.* ii. p. 96.

HONGKONG (ex *Hance*).

10. **Stellaria media**, *Cyr. Char. Comm.* 36; *Vill. Hist. Pl. Dauph.* iii. p. 615; *Benth. Fl. Hongk.* p. 21; *Maxim. in Mél. Biol.* ix. p. 42.

CHINA, not uncommon, though perhaps originally introduced. Mus. Brit.; Herb. Kew.

North temperate and arctic regions, and naturalized elsewhere.

11. **Stellaria nemorum**, *Linn. Sp. Pl.* ed. 1, p. 421; *DC. Prodr.* i. p. 396.

Stellaria Bungeana, *Fenzl in Ledeb. Fl. Ross.* i. p. 376.

Stellaria nemorum, β. Bungeana, *Regel, Pl. Radd.* i. p. 388; *Maxim. in Mél. Biol.* ix. p. 42.

NORTH CHINA (ex *Maximowicz*).

Temperate and arctic Europe and Siberia.

12. **Stellaria palustris**, *Ehrh. in Retz. Fl. Scand. Prodr.* ed. 2, p. 106.

Stellaria glauca, *With. Arrang. Brit. Pl.* i. p. 420; *DC. Prodr.* i. p. 397; *Turcz. in Bull. Soc. Nat. Mosc.* 1837, no. vii. p. 150.

North China, without locality (*Kirilow* ex *Turczaninow*).

Western Europe to the Himalayas and Japan.

13. **Stellaria** (§ **Krascheninikowia**) **rhaphanorrhiza**, *Hemsl.*, n. sp.

*Radix* tuberosa, fusiformis. *Caules* erecti, simplices, 3–6 poll. alti, obscure bifariam puberuli. *Folia* subcarnosa, lanceolata vel oblanceolata, 1–1½ poll. longa, utrinque attenuata, vix acuta, cito glabrescentia. *Flores* 5-meri, in axillis foliorum superiorum solitarii, circiter 6 lineas diametro, pedunculis puberulis quam folia paullo brevioribus; sepala anguste lanceolata, acuminata, margine alba, scariosa, dorso pilosula, petalis fere æquilonga; petala obcordata, unguiculata; stamina 10; styli 3, stamina excedentes, stigmatibus capitatis. *Capsula* deest.

Shingking: Fungshan (*Ross*!); Kiangsu or Kiangsi: Chin kiang or Kiukiang (*Maries*!); Corea: Soul mountains (*Carles*!). Herb. Kew.

We advance this species with considerable doubt, as it depends, as far as the material goes, on the constancy of the number of styles and the emarginate petals.

14. **Stellaria rupestris**, *Hemsl.*

Krascheninikowia rupestris, *Turcz. in Ledeb. Fl. Ross.* i. p. 373; *Maxim. in Mél. Biol.* ix. p. 37, et *Fl. As. Or. Fragm.* p. 6.

Chihli: Pohuashan (*Bretschneider* ex *Maximowicz*).

Baical and Dahuria eastward.

This is united with the European *Stellaria bulbosa*, Wulf. in Hooker's 'Flora of British India;' but in a later review of the genus *Krascheninikowia*, Maximowicz claims specific rank for it.

15. **Stellaria saxatilis**, *Ham. in Wall. Cat.* n. 634; *Hook. f. Fl. Brit. Ind.* i. p. 232.

Stellaria vestita, *Kurz in Journ. Bot.* 1873, p. 194.

Yunnan: Momyen (*Anderson*!). Herb. Kew.

Himalaya and Khasia mountains, Java, Siberia, and Japan.

16. **Stellaria uliginosa**, *Murr. Prodr. Gœtt.* p. 55; *Benth. Fl. Hongk.* p. 22; *Maxim. in Mél. Biol.* ix. p. 49.

Stellaria Alsine, *Hoffm.*; *Bunge, Enum. Pl. Chin. Bor.* p. 8.

North China (ex *Bunge*); Kiangsu: Shanghai (*Maingay*!); Kiangsi: Kiukiang (*Shearer*!); Formosa (*Oldham*!); Kwangtung (*Tate*!); Hongkong (*Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

North temperate and subarctic zone.

1. **Arenaria holosteoides**, *Edgew. in Hook. f. Fl. Brit. Ind.* i. p. 241.

Lepyrodiclis holosteoides, *Fenzl in Ledeb. Fl. Ross.* i p. 359; *Boiss. Fl. Orient.* i. p. 686.

Gouffeia crassiuscula, *Camb. in Jacq. Voy. Bot.* t. 30.

KANSUH: north of the Hoangho (*Piasezki* ex *Maximowicz, MSS.*).

Asia Minor to the Himalayas and Soongaria.

2. **Arenaria juncea**, *Bieb. Fl. Taur.* iii. (*Suppl.*) p. 309; *DC. Prodr.* i. p. 408; *Maxim. in Mél. Biol.* ix. p. 34; *Franchet, Pl. David.* p. 54.

CHIHLI: Pohuashan (*David*, 2291 !). Herb. Kew.

Dahuria to Mandshuria.

3. **Arenaria kansuensis**, *Maxim. in Mél. Biol.* x. p. 579.

KANSUH: alpine pastures (*Przewalski* ex *Maximowicz*).

4. **Arenaria lateriflora**, *Linn. Sp. Pl.* ed. 1, p. 423; *DC. Prodr.* i. p. 412.

Moehringia lateriflora, *Fenzl*; *Ledeb. Fl. Ross.* i. p. 371.

COREA: Laoling (*Webster* !). Herb. Kew.

North cold-temperate and arctic regions.

5. **Arenaria Przewalskii**, *Maxim. in Mél. Biol.* x. p. 578.

KANSUH: alpine pastures (*Przewalski* ex *Maximowicz*).

6. **Arenaria serpyllifolia**, *Linn. Sp. Pl.* ed. 1, p. 423; *DC. Prodr.* i. p. 411; *Maxim. in Mél. Biol.* ix. p. 34; *Franchet, Pl. David.* p. 53, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 202 (varietates).

CHINA: common. Mus. Brit.; Herb. Kew.

Temperate Europe, N. Africa, and Asia, and naturalized in other countries.

1. **Sagina Linnæi**, *Presl*; *Maxim. in Mél. Biol.* ix. p. 32; *Franchet, Pl. David.* p. 50 (var. maxima).

Sagina maxima, *A. Gr. in Mem. Amer. Acad.* 1859, p. 382, in adnot.; *Walp. Ann.* vii. p. 309.

Sagina sinensis, *Hance in Journ. Bot.* 1868, p. 46.

CHINA: not uncommon. Mus. Brit.; Herb. Kew.

Widely spread in north temperate regions.

1. **Spergularia media**, *G. Don, Gen. Syst.* i. p. 426, *a.* hetero-

sperma, *Fenzl in Ledeb. Fl. Ross.* ii. p. 168, ex *Maxim. in Mél. Biol.* ix. p. 54.

North China (ex *Maximowicz*).

Very widely dispersed.

1. **Drymaria cordata,** *Willd.* ex *Rœm. et Schult. Syst. Veg.* v. p. 406; *DC. Prodr.* i. p. 395; *Benth. Fl. Hongk.* p. 22.

Formosa: Tamsui (*Oldham*, 23!); Kwangtung (*Tate*!); Hongkong (*Wright*! *Hance*!). Mus. Brit.; Herb. Kew.

Throughout the tropics.

1. **Polycarpon Lœflingiæ,** *Edgew. et Hook. f. in Hook. f. Fl. Brit. Ind.* i. p. 245.

Hapalosia Lœflingiæ, *Wall.*; *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* p. 358.

Kwangtung: West River (*Sampson*!), North River (*Ford*!), Pakhoi (*Playfair*!); Hainan (*Swinhoe*!). Herb. Kew.

Tropical Asia and Africa.

1. **Polycarpæa corymbosa,** *Lam. Dict.* ii. p. 129; *DC. Prodr.* iii. p. 374; *Benth. Fl. Hongk.* p. 22.

China, without locality (*Fortune*, 88!); Hongkong (*Wright*!); Kwangtung: Pakhoi (*Playfair*!). Mus. Brit.; Herb. Kew.

Almost throughout the tropics.

## 19. PORTULACEÆ.

1. **Portulaca oleracea,** *Linn. Sp. Pl.* ed. 1, p. 445; *DC. Prodr.* iii. p. 353; *Lour. Fl. Cochinch.* p. 293; *Benth. Fl. Hongk.* p. 127; *Debeaux, Fl. Tchef.* p. 63; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 220.

China: common in the warmer parts. Mus. Brit.; Herb. Kew.

Tropical and subtropical regions generally, including remote oceanic islands.

1. **Claytonia,** sp.

Chihli: Siaowutaishan (*Hancock* ex *Maximowicz, MSS.*).

## 20. ELATINEÆ.

1. **Bergia ammannioides**, *Roxb. Hort. Bengal.* p. 34, et *Fl. Ind.* ii. p. 457; *Roth, Nov. Pl. Sp.* p. 219; *DC. Prodr.* i. p. 390; *Hance in Journ. Bot.* 1878, p. 225.

KWANGTUNG: Canton (*Sampson* ex *Hance*).

Tropical and subtropical regions in Asia, Africa, and Australia.

## 21. HYPERICINEÆ.

1. **Hypericum Ascyron**, *Linn. Sp. Pl.* ed. 1, p. 783; *DC. Prodr.* i. p. 545; *Hance in Journ. Bot.* 1880, p. 259; *Maxim. in Mél. Biol.* xi. p. 162; *Franchet, Pl. David.* p. 55.

CHIHLI: Inschan (*Tatarinow* ex *Maximowicz*), Takiosze (*Bretschneider*!); SHANTUNG: Chefoo (*hb. Forbes*!); KIANGSI: Kiukiang (*Shearer*!); HUNAN: banks of the Siang (*Bullock* ex *Hance*); COREA: Port Chusan (*Wilford*!); COREAN ARCHIPELAGO (*Oldham*, 84!). Mus. Brit.; Herb. Kew.

Dahuria eastward.

2. **Hypericum attenuatum**, *Choisy, Prodr. Hyper.* p. 47, t. 6, et *in DC. Prodr.* i. p. 548; *Hance in Journ. Bot.* 1874, p. 259, et 1878, p. 104, et 1885, p. 321; *Maxim. in Mél. Biol.* xi. p. 166; *Franchet, Pl. David.* p. 56.

CHIHLI: Jehol (*David* 1933, ex *Franchet*); ANWHEI: Chinkiang (*Stronach* ex *Hance*); KIANGSI: Kiukiang (*Moellendorff* ex *Hance*); KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

Baical eastward.

3. **Hypericum chinense**, *Linn. Syst. Nat.* ed. 10, p. 1184 (1759); *Richt. Codex*, p. 759, n. 5772; *Bunge, Enum. Pl. Chin. Bor.* p. 10; *DC. Prodr.* i. p. 545; *Hance, Advers.* p. 42, et *in Journ. Bot.* 1879, p. 8; *Maxim in Mél. Biol.* xi. p. 159.

Hypericum monogynum, *Linn. Sp. Pl.* ed. 2, p. 1107 (1763); *Thunb. Fl. Jap.* p. 29; *Bot. Mag.* t. 334.

Hypericum salicifolium, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 162, ex *Maxim. loc. cit.*

Norysca chinensis, *Spach, Hist. Nat. Veg.* v. p. 427.

Hypericum aureum, *Lour. Fl. Cochinch.* p. 472!

Norysca aurea, *Blume in Mus. Bot. Lugd.-Bat.* ii. p. 23.

Norysca punctata, *Blume, loc. cit.*

Hypericum monogynum, var. salicifolium, *Choisy in Zoll. Verz.* p. 150.

Hypericum chinense, β, *Hook. et Arn. Bot. Beech. Voy.* p. 172.

CHINA: without locality (*Beechey! Macartney! Staunton! Nelson!*); CHIHLI: Peking (*Bretschneider!*); KIANGSU: *Poli* ex *Franchet MSS.*); KIANGSI: Kiukiang (*Shearer!*); FORMOSA: Tamsui (*Oldham*, 29!); SHENSI (*Piasezki*, cult. ex *Maximowicz*); KWANGTUNG: North River (*Sampson* ex *Hance*). Mus. Brit.; Herb. Kew.

Japan.

4. **Hypericum erectum**, *Thunb. Fl. Jap.* p. 296; *DC. Prodr.* i. p 548; *Maxim. in Mél. Biol.* xi. p. 168.

KIANGSI: Kiukiang (*Shearer! Forbes!*). Mus. Brit.; Herb. Kew.

There is some confusion of this and *H. attenuatum*, and we doubt the two being represented in China; but in the absence of authenticated specimens, we are unable to determine the point.

Japan.

5. **Hypericum formosanum**, *Maxim. in Mél. Biol.* xi. p. 160.

FORMOSA: Tamsui (*Oldham*, 31!). Mus. Brit.; Herb. Kew.

6. **Hypericum japonicum**, *Thunb.* p. 295, t. 31; *DC. Prodr.* i. p. 548; *Benth. Fl. Hongk.* p. 23; *Hance in Journ. Bot.* 1874, p. 259; *Franchet, Pl. David.* p. 56.

Hypericum mutilum, *Maxim. in Mél. Biol.* xi. p. 171, *vix Linn.*

Brathys japonica, B. laxa, et forsan aliæ, *Blume in Mus. Bot. Lugd.-Bat.* ii. p. 19, fide *Maxim.*

Hypericum nervatum, *Hance in Walp. Ann.* ii. p. 188.

KIANGSI: Kiukiang (*Shearer!*); FORMOSA: Tamsui (*Oldham*, 31/1!); Kwangtung (*Ford!*); Pakhoi (*Playfair!*); HONGKONG (*Wright! Champion!*). Mus. Brit.; Herb. Kew.

North-eastern India to Japan, and southward to Australia and New Zealand.

[*Hypericum olympicum* and *H. petiolatum*, Lour. Fl. Cochinch. pp. 471, 472, have not been identified.]

7. **Hypericum patulum**, *Thunb. Fl. Jap.* p. 295, et *Ic. Pl. Jap.* t. 17; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 254; *Maxim. in Mél. Biol.* xi. p. 161; *Hance in Journ. Bot.* 1878, p. 104; *Bot. Mag.* t. 5693.

Hypericum uralum, *Ham. ex Don, Prodr. Fl. Nep.* p. 218; *Bot. Mag.* t. 2375.

Hypericum oblongifolium, *Wall. Pl. Asiat. Rar.* t. 244, *non Choisy in Wall. Cat.*

KIANGSU: Chinkiang (*Stronach* ex *Hance*); SHENSI (*Piasezki* ex *Maximowicz*); Yunnan (*Anderson*!). Herb. Kew.

Northern India, from Kashmir to Assam and Khasia; also recorded from Formosa in the 'Flora of British India,' but probably by mistake, as there are no specimens in the Kew Herbarium.

8. **Hypericum perforatum**, *Linn. Sp. Pl.* ed. 1, p. 785; *DC. Prodr.* i. p. 549; *Maxim. in Mél. Biol.* xi. p. 166; *Debeaux, Fl. Tchef.* p. 35 (var. confertifolium).

SHANTUNG: near Chefoo (ex *Debeaux*); KIANGSI: Kiukiang (*Shearer*!); SHENSI (*Piasezki* ex *Maximowicz*). Herb. Kew.

Western Europe and North Africa to North-west India and in the Altai.

9. **Hypericum Przewalskii**, *Maxim. in Mél. Biol.* xi. p. 164.

KANSUH: in the western elevated alpine part on the river Yussun-Chatyma (*Przewalski* ex *Maximowicz*).

10. **Hypericum Sampsoni**, *Hance in Journ. Bot.* 1865, p. 378, et 1870, p. 275; *Hemsl. in Journ. Bot.* 1876, p. 207; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 255; *Maxim. in Mél. Biol.* xi. p. 165.

Hypericum electrocarpum, *Maxim. in Bull. Acad. Pétersb.* xii. p. 60.

CHEKIANG: Ningpo (*hb. Forbes*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 30!); KWANGTUNG: Lukpo, west of Canton (*Sampson*!). Mus. Brit.; Herb. Kew.

Khasia mountains in Eastern India, and Japan.

11. **Hypericum Seniawini**, *Maxim. in Mél. Biol.* xi. p. 169.

SOUTH CHINA (*Seniawin* in herb. Fisch. ex *Maximowicz*).

1. **Cratoxylon polyanthum**, *Korth. in Temminck, Verhandl. Nat. Geschied. Bot.* p. 175, t. 36; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 257 (varietates 2): *Maxim. in Mél. Biol.* xi. p. 173.

Cratoxylon ligustrinum, *Blume in Mus. Bot. Lugd.-Bat.* ii. p. 16.

Cratoxylon petiolatum *et* C. cochinchinense, *Blume, loc. cit.*?

Hypericum cochinchinense *et* H. petiolatum, *Lour. Fl. Cochinch.* p. 472?

Hypericum biflorum, *Lam. Dict.* iv. p. 170; *Hook. et Arn. Bot. Beech. Voy.* p. 172.

Hypericum chinense, *Retz. Obs. Bot.* v. p. 27.

Elodea chinensis, *Hance in Hook. Lond. Journ. Bot.* vii. p. 472.

Ancistrolobus ligustrinus, *Spach in Hist. Nat. Veg.* v. p. 361.

CHINA: without locality (*Bladh*! *Millett*! *Seemann*!); KWANG-

TUNG: Macao (*Tate*!), Whampoa (ex *Hance*); HONGKONG (*Wright*! *Urquhart*! *Champion*! *Lamont*!). Mus. Brit.; Herb. Kew.

Birma, Malay peninsula and archipelago, and Philippines.

## 22. GUTTIFERÆ.

1. **Garcinia multiflora,** *Champ. in Hook. Kew Journ. Bot.* iii. p. 310; *Walp. Ann.* iv. p. 365; *Seem. Bot. Voy. 'Herald,'* p. 368, t. 79; *Benth. Fl. Hongk.* p. 25.

HONGKONG (*Champion*! *Wright*!). Herb. Kew.

2. **Garcinia oblongifolia,** *Champ. in Hook. Kew Journ. Bot.* iii. p. 311; *Walp. Ann.* vii. p. 352; *Seem. Bot. Voy. 'Herald,'* p. 368, t. 93; *Benth. Fl. Hongk.* p. 25.

HONGKONG (*Wright*! *Champion*!). Herb. Kew.

1. **Calophyllum Inophyllum,** *Linn. Sp. Pl.* ed. 1, p. 513; *DC. Prodr.* i. p. 562; *Hance in Journ. Bot.* 1879, p. 8.

HAINAN: around Kiengchaufu (*Delavay* ex *Hance*), near Hoihau (*Bullock & Stuhlmann* ex *Hance*).

Very widely dispersed in the tropics of the Old World.

2. **Calophyllum membranaceum,** *Gardn. et Champ. in Hook. Kew Journ. Bot.* i. p. 309; *Walp. Ann.* ii. p. 191; *Planch. et Triana in Ann. Sc. Nat.* sér. 4, xv. p. 290; *Benth. Fl. Hongk.* p. 25.

Calophyllum spectabile, *Hook. et Arn. Bot. Beech. Voy.* p. 174, *non Willd.*

CHINA: without locality (*Beechey*!); HONGKONG (*Champion*! *Wright*!). Herb. Kew.

[*Stalagmites erosipetala,* Miq. in Journ. de Bot. Néerl. i. p. 126, from China, and *Calysaccion chinense,* Walp. in Bot. Zeit. 1851, p. 368, described from buds of male flowers alone, have not been identified.]

## 23. TERNSTRŒMIACEÆ.

1. **Ternstrœmia japonica,** *Thunb. in Trans. Linn. Soc.* ii. p. 335; *Sieb. et Zucc. Fl. Jap.* p. 148, t. 80; *Choisy, Mém. Ternstr.* p. 18; *Benth. Fl. Hongk.* p. 27; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 280.

Cleyera japonica, *Thunb. Fl. Jap.* p. 224, *non Sieb. et Zucc.*

Cleyera fragrans *et* C. dubia, *Champ. in Trans. Linn. Soc.* xxi. p. 115.

Ternstrœmia fragrans *et* T. dubia, *Choisy, Mém. Ternstr.* p. 19.

HONGKONG (*Champion*! *Wilford*! *Lamont*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Western peninsula of India to Ceylon, and Khasia mountains to Sumatra, and in Japan.

1. **Sladenia celastrifolia**, *Kurz in Journ. Bot.* 1873, p. 194, t. 133. fig. 1; *Dyer in Hook. f. Fl. Brit. Ind.* i. part 2 (1874), p. 281.

YUNNAN: Mynela (*Anderson* !). Mus. Brit.; Herb. Kew.

Kurz records the locality as "Muangla, Khakyen hills."

1. **Adinandra Drakeana**, *Franchet, Pl. David.* p. 56.

KIANGSI: eastern region (*David* ex *Franchet*).

2. **Adinandra Millettii**, *Benth. et Hook. f. Gen. Plant.* i. p. 183; *Hance in Journ. Bot.* 1878, p. 9.

Cleyera Millettii, *Hook. et Arn. Bot. Beech. Voy.* p. 171, t. 33.

KWANGTUNG: Pakwan hills, above Canton (*Millett* ! *Sampson* ! *Wawra* !). Herb. Kew.

At the British Museum and Kew are specimens (Tamsui, Formosa, *Oldham*, 37) of an *Adinandra*, which may be a variety of this, or possibly a distinct species.

1. **Cleyera ochnacea**, *DC. Mém. Ternstr.* p. 21, et *Prodr.* i. p. 524; *Choisy, Mém. Ternstr.* p. 21; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 283.

Cleyera japonica, *Sieb. et Zucc. Fl. Jap.* p. 153, t. 81, *non Thunb.*

CHEKIANG: Ningpo (*Cooper* !); FORMOSA: Keelung (*Wilford* ! *Ford* !), Tamsui (*Oldham*, 35 !). Mus. Brit.; Herb. Kew.

Central Himalaya and Japan.

1. **Eurya chinensis**, *R. Br. in Abel's Voy., Append.* p. 379, cum ic.; *DC. Prodr.* i. p. 525; *Blume in Mus. Bot. Lugd.-Bat.* ii. p. 108; *Seem. Bot. Voy. 'Herald,'* p. 366; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 285.

Eurya littoralis, *Sieb. in Münch. Abh. der 2 Cl. Akad. Wiss.* iv. Abth. 2, pp. 163 et 199, ex *Blume.*

CHINA, without locality (*Staunton* ! *Forbes* !); KIANGSI (ex *De Candolle*); FOKIEN: Amoy (*hb. Mus. Brit.*); KWANGTUNG: Swatow (*Perry* !); HONGKONG (*Seemann* !); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 93 !). Mus. Brit.; Herb. Kew.

Ceylon; Japan.

2. **Eurya distichophylla**, *Hemsl.*, n. sp.

*Ramuli* ultimi graciles, primum sericeo-villosi. *Folia* disticha, conferta, subsessilia, subcoriacea, ovato-oblonga vel ovato-lanceolata, 1–1½ poll. longa, basi rotundata sæpiusque leviter inæqualia, apice obtusa, margine minutissime crenulata, supra glabra, nitida, subtus strigillosa, venis utrinque immersis. *Flores* (♂ tantum visi) subsessiles, pauci ad axillas foliorum congesti, 2–3 lineas diametro; sepala inæqualia, ovata, obtusa, extus pilosula; petala obovato-oblonga, sepalis triplo longiora, glabra, basi cohærentia; stamina circiter 15, uniseriata, omnino glabra, petalis breviora, filamentis filiformibus, antheris undulatis filamentis æquilongis; pistilli rudimentum conicum, apice barbatum.

FOKIEN: Amoy (*Swinhoe*!). Herb. Kew.

This species is allied to a small hairy Indian form of the genus referred to *E. acuminata*; but it seems sufficiently distinct in the characters described above.

3. **Eurya japonica**, *Thunb. Fl. Jap.* p. 191, t. 25; *DC. Prodr.* i. p. 525; *Benth. Fl. Hongk.* p. 28; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 284.

FORMOSA: Keelung (*Oldham*, 32! *Ford*!); KWANGTUNG (*Tate*!); HONGKONG (*Champion*! *Wilford*! *Seemann*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Common in the mountains of North and South India to Ceylon, and in the Eastern Peninsula eastward to the Fijis and Japan.

4. **Eurya Macartneyi**, *Champ. in Hook. Kew Journ. Bot.* iii. p. 307; *Walp. Ann.* iv. p. 347; *Benth. Fl. Hongk.* p. 28; *Seem. Bot. Voy. 'Herald,'* p. 366, t. 74.

HONGKONG (*Champion*! *Wright*! *Wilford*! *Ford*! *Lamont*!). Mus. Brit.; Herb. Kew.

There are also specimens collected by Lord Macartney's expedition and by Fortune which are not localized.

1. **Pentaphylax euryoides**, *Gardn. et Champ. in Hook. Kew Journ. Bot.* i. p. 245; *Champ. in Trans. Linn. Soc.* xxi. p. 114, t. 12; *Benth. Fl. Hongk.* p. 28; *Seem. Bot. Voy. 'Herald,'* p. 367.

HONGKONG (*Champion*! *Wright*! *Wilford*! *Seemann*! *Ford*! *Lamont*!). Mus. Brit.; Herb. Kew.

1. **Actinidia arguta**, *Planch. ex Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 15; *Franch. et Sav. Enum. Pl. Jap.* i. p. 58.

Trochostigma arguta, *Sieb. et Zucc. in Münch. Abhandl.* iii. p. 727.

CHIHLI: Peking (*Bretschneider*!). Herb. Kew.

Japan.

Perhaps not specifically distinct from the next; but we have seen only one imperfect specimen bearing this name.

2. **Actinidia callosa**, *Lindl. Nat. Syst. Bot.* ed. 2 (1836), p. 439; *Walp. Ann.* i. p. 15; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 286, excl. syn.

SHINGKING: Chienshan (*Ross*!); FORMOSA: Keelung (*Ford*!); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 94!); LUCHU ARCHIPELAGO (*Wilford*!). Herb. Kew.

Himalayas and Japan, as limited in the 'Flora of British India' (excluding *A. Kolomikta*), and by Masters (Gard. Chron. n. s. xiv. p. 262). Franchet and Savatier do not, however, include *A. callosa* in their 'Enumeration;' but it is probable that the specimens they refer to *A. arguta* (or possibly to *A. rufa*) are this species. Bentham (Journ. Linn. Soc. v. p. 55) treats *Trochostigma arguta* and *T. rufa* as varieties of *Actinidia callosa*. See Maximowicz in Mél. Biol. xii. p. 424.

3. **Actinidia Championi**, *Benth. Fl. Hongk.* p. 26.

Heptaca? latifolia, *Gardn. et Champ. in Hook. Kew Journ. Bot.* i. p. 243.

HONGKONG (*Champion*! *Urquhart*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

Cambodia.

4. **Actinidia chinensis**, *Planch. in Hook. Lond. Journ. Bot.* vi. p. 303; *Walp. Ann.* i. p. 15.

CHINA, without locality (*Fortune*, 39, 1846!); CHEKIANG: near Huchau (*hb. Forbes*!). Mus. Brit.; Herb. Kew.

5. **Actinidia Davidii**, *Franchet, Pl. David.* p. 57.

KIANGSI: eastern part (*David* ex *Franchet*).

6. **Actinidia eriantha**, *Benth. in Journ. Linn. Soc.* v. p. 55.

CHINA, without locality (*ex hb. Lindley*, 1838!). Herb. Kew.

7. **Actinidia fulvicoma**, *Hance in Journ. Bot.* 1885, p. 321.

KWANGTUNG: Lofaushan (*Henry* ex *Hance*). Herb. Kew.

8. **Actinidia Kolomikta**, *Rupr. in Maxim. Prim. Fl. Amur.*

p. 63; *Benth. in Journ. Linn. Soc.* v. p. 55; *Masters in Gard. Chron.* n. s. xiv. p. 262.

SHINGKING: Chienshan (*Ross!*). Herb. Kew.

Amur; Japan.

1. **Saurauja macrotricha,** *Kurz* ex *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 287.

YUNNAN: Ponsee (*Anderson!*). Herb. Kew.

Khasia; Birma.

2. **Saurauja Oldhami,** *Hemsl.*, n. sp.

*Ramuli* crassiusculi, cavi, foliaque sparsim hispidula. *Folia* petiolata, submembranacea, discoloria, subtus pallidiora, lanceolata, absque petiolo usque ad 7 poll. longa et 3 poll. lata, utrinque attenuata, apice longe acuminata simul mucronulata, margine pilis rigidis subaculeolata; petiolus graciliusculus, 9–15 lineas longus. *Flores* parvi (3–4 lineas diametro) in cymas parvas pedunculatas supraxillares dispositi, pedunculis gracilibus petiolis paulo longioribus, pedicellis brevibus; sepala subæqualia, glabra vel glabrescentia, oblongo-orbicularia basi cohærentia; petala bene evoluta non visa; ovarium glabrum, stylis 3.

FORMOSA: Tamsui (*Oldham*, 34! *Watters!*). Mus. Brit.; Herb. Kew.

In foliage this is very much like some of the forms referred to *S. tristyla*; but the pedunculate inflorescence on the young shoots distinguishes it.

3. **Saurauja punduana,** *Wall. Pl. As. Rar.* ii. p. 40; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 287.

YUNNAN: Ponsee (*Anderson!*). Herb. Kew.

North-eastern India and Birma.

4. **Saurauja tristyla,** *DC. Mém. Ternstr.* p. 31, t. 7, et *Prodr.* i. p. 526; *Benth. Fl. Hongk.* p. 27; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 287.

HONGKONG (*Wright! Hance!*). Herb. Kew.

Malay peninsula and archipelago.

1. **Stachyurus præcox,** *Sieb. et Zucc. Fl. Jap.* i. p. 43, t. 18; *Franch. et Sav. Enum. Pl. Jap.* i. p. 59.

KIANGSI: Kiukiang (*Maries!*); LUCHU ARCHIPELAGO (*Wright!*). Herb. Kew.

Japan, with a closely allied species in the Himalayas.

1. **Stuartia monadelpha**, *Sieb. et Zucc. Fl. Jap.* i. p. 181, t. 96; *Franch. et Sav. Enum. Pl. Jap.* i. p. 59.

COREAN ARCHIPELAGO? (*Oldham*, 91, A!). Herb. Kew.

Japan. It is uncertain whether Oldham's specimens were collected in Japan or the Corean archipelago.

1. **Schima Noronhæ**, *Reinw. in Blume Bijdr.* p. 129; *Korth. in Temminck, Verhandl. Nat. Gesch. Bot.* p. 144, t. 29. figs. 21–27; *Miq. Fl. Ind. Bat.* i. 2. p. 492; *Benth. Fl. Hongk.* p. 29.

Schima superba, *Gardn. et Champ. in Hook. Kew Journ. Bot.* i. p. 246; *Seem. Bot. Voy. 'Herald,'* p. 367, t. 75.

Gordonia javanica, *Hook. Bot. Mag.* t. 4539.

CHINA, without locality (*Abel*! *Millett*!); ANWHEI: Tongmun (*Heude in hb. Forbes*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Lamont*! *Ford*!). Mus. Brit.; Herb. Kew.

Eastern frontier of India; Cochin China and Malay archipelago.

1. **Gordonia anomala**, *Spreng. Syst. Veg.* iii. p. 126; *Benth. Fl. Hongk.* p. 29.

Camellia axillaris, *Bot. Reg.* t. 349; *Bot. Mag.* t. 2047; *DC. Prodr.* i. p. 529, *sed non Roxb. fide Dyer in Journ. Linn. Soc.* xiii. p. 330.

Polyspora axillaris, *Sweet, Hort. Brit.* ed. 1, p. 61, ex *G. Don, Gen. Syst.* i. p. 574; *Bot. Mag.* t. 4019; *Seem. Bot. Voy. 'Herald,'* p. 367.

HONGKONG: common, and apparently endemic, for there are no localized specimens from the mainland. Seemann's specimens labelled "South China" are recorded from Hongkong, *op. sup. cit.* Brit. Mus.; Herb. Kew.

1. **Camellia assimilis**, *Champ. Hook. Kew Journ. Bot.* iii. p. 309, et *in Trans. Linn. Soc.* xxi. p. 112; *Seem. Bot. Voy. 'Herald,'* p. 367, t. 77; *Benth. Fl. Hongk.* p. 30.

Thea assimilis, *Seem. in Trans. Linn. Soc.* xxii. p. 349.

HONGKONG (*Champion*! *Wright*!). Herb. Kew.

This is probably a large-flowered variety of *C. caudata*, Wall.

2. **Camellia caudata**, *Wall. Pl. As. Rar.* iii. p. 36; *Griff. Notul.* iv. p. 559, et *Ic.* t. 601. fig. 2; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 203; *Hance in Journ. Bot.* 1883, p. 296.

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

Himalaya and Khasia mountains.

3. **Camellia drupifera**, *Lour. Fl. Cochinch.* p. 411; *Seem. in*

*Trans. Linn. Soc.* xxii. p. 344; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 293?

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

North-eastern India, Tenasserim, Andaman Islands, and Cochinchina.

This and *C. Sasanqua* are so closely allied that imperfect specimens are very difficult to determine, and Ford's specimens may belong to the latter.

4. **Camellia Edithæ**, *Hance in Ann. Sc. Nat.* 4e série, xv. p. 221; *Walp. Ann.* vii. p. 368.

FOKIEN: without locality (*Swinhoe*!), Ankoe (*De Grijs*!). Herb. Kew.

5. **Camellia euryoides**, *Lindl. Bot. Reg.* t. 983; *Maxim. Fl. As. Or. Fragm.* p. 7.

Camellia theiformis, *Hance in Ann. Sc. Nat.* 4e série, xv. p. 221.

CHEKIANG: Ningpo (*Hancock*!); CHUSAN ARCHIPELAGO (*Cantor*!). Herb. Kew.

6. **Camellia fraterna**, *Hance in Ann. Sc. Nat.* 4e série, xviii. p. 218; *Walp. Ann.* vii. p. 368.

FOKIEN: Foochow (*Swinhoe*!). Herb. Kew.

7. **Camellia Grijsii**, *Hance in Journ. Bot.* 1879, p. 9.

FOKIEN (*De Grijs* ex *Hance*).

8. **Camellia hongkongensis**, *Seem. in Trans. Linn. Soc.* xxii. p. 342, t. 60; *Benth. Fl. Hongk.* p. 30.

Camellia japonica, *Champ. in Hook. Kew Journ. Bot.* iii. p. 309, et *in Trans. Linn. Soc.* xxi. p. 112; *Seem. Bot. Voy. 'Herald,'* p. 367, *non Linn.*

HONGKONG (*Eyre*! *Champion*! *Seemann*! *Lamont*! *Perry*!). Mus. Brit.; Herb. Kew.

9. **Camellia japonica**, *Linn. Sp. Pl.* ed. 1, p. 698; *DC. Prodr.* i. p. 529; *Seem. in Trans. Linn. Soc.* xxii. p. 341; *Bot. Mag.* t. 42; *Sieb. et Zucc. Fl. Jap.* i. p. 155, t. 82; *Seem. Journ. Bot.* iv. (1868) p. 1, t. 42 (var. foliis variegatis).

CHINA, without locality (*Macartney*! *Staunton*! *Fortune*!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*!); LUCHU ARCHIPELAGO: Oosing Island (*Carpenter*!). Mus. Brit.; Herb. Kew.

Throughout Japan.

10. **Camellia reticulata,** *Lindl. Bot. Reg.* t. 1078; *Bot. Mag.* t. 2984; *Seem. in Trans. Linn. Soc.* xxii. p. 343; *Benth. Fl. Hongk.* p. 30.

Camellia spectabilis, *Champ. in Hook. Kew Journ. Bot.* iii. p. 310, et *in Trans. Linn. Soc.* xxi. p. 111; *Seem. Bot. Voy. 'Herald,'* p. 367, t. 78.

HONGKONG (*Champion*! *Eyre*! *Lamont*!). Mus. Brit.; Herb. Kew.

11. **Camellia rosæflora,** *Hook. Bot. Mag.* t. 5044; *Walp. Ann.* vii. p. 369.

Camellia Sasanqua, β. stricta, *Edwards, Bot. Reg.* t. 547; *Lodd. Bot. Cab.* t. 1134.

Camellia maliflora, *Lindl. Bot. Reg.* sub t. 1078.

Thea maliflora, *Seem. in Trans. Linn. Soc.* xxii. p. 346.

Recorded from CHINA by Edwards, and from JAPAN by Seemann, while Hooker states of the cultivated plant that he did not know its history. It is not included in Franchet and Savatier's Enumeration of Japanese Plants.

12. **Camellia salicifolia,** *Champ. Hook. Kew. Journ. Bot.* iii. p. 309, et *in Trans. Linn. Soc.* xxi. p. 112; *Seem. Bot. Voy. 'Herald,'* p. 367, t. 76; *Benth. Fl. Hongk.* p. 30.

Thea salicifolia, *Seem. in Trans. Linn. Soc.* xxii. p. 349.

HONGKONG (*Champion*! *Urquhart*! *Wilford*! *Seemann*!). Mus. Brit.; Herb. Kew.

13. **Camellia Sasanqua,** *Thunb. Fl. Jap.* p. 273, t. 30; *Staunt. Embas. China*, ii. p. 466, cum icone; *Bot. Reg.* t. 12 et t. 1091; *Sieb. et Zucc. Fl. Jap.* i. p. 158, t. 83; *Bot. Mag.* t. 5152 (var. anemoniflora); *Seem. in Trans. Linn. Soc.* xxii. p. 343; *Hance in Journ. Bot.* 1879, p. 9; *Franchet, Pl. David.* p. 58.

Camellia oleifera, *Abel, Journ. in China,* p. 174, cum ic., *App.* p. 363; *Lindl. in Bot. Reg.* t. 942; *Lodd. Bot. Cab.* t. 1065.

Camellia oleosa, *Lour. Fl. Cochinch.* p. 339, *ex Seemann.*

KIANGSI: Kiukiang (*Shearer*!), without locality (*Staunton*!); CHUSAN ARCHIPELAGO (*Cantor*!); KWANGTUNG (*Staunton*! *Abel*!), West River (*Graves* ex *Hance*); HAINAN (*Hancock*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Also in Japan.

14. **Camellia Thea,** *Link, Enum. Pl. Hort. Bot. Berol.* ii. (1822) p. 73.

Camellia Bohea, *Griff. Notul.* iv. p. 553, *et Ic.* t. 602. fig. 1.

Camellia theifera, *Griff. Notul.* iv. p. 558, *et Ic.* t. 601, fig. 1 et 3; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 292; *Franchet, Pl. David.* p. 58.

Camellia viridis, *Link, Enum. Pl. Hort. Bot. Berol.* ii. p. 73.

Thea sinensis, *Linn. Sp. Pl.* ed. 1, p. 515.

Thea Bohea *et* T. viridis, *Linn. Sp. Pl.* ed. 2, pp. 734 et 735.

Thea cochinchinensis *et* T. cantoniensis, *Lour. Fl. Cochinch.* pp. 338 et 339, *ex Seemann.*

Thea assamica, *Masters in Journ. Agric. et Hortic. Soc. India,* iii. (1844), p. 63.

Thea japonica, *Kæmpf. Amœn. Exot.* p. 605.

Thea chinensis, *Sims, Bot. Mag.* t. 998; *DC. Prodr.* i. p. 530; *Seem. in Trans. Linn. Soc.* xxii. p. 349, t. 61.

There are numerous specimens of this species in the herbaria, from China, Formosa, and Japan; but it is still uncertain whether the plant is really indigenous eastward of Assam and Cachar. Mus. Brit.; Herb. Kew.

See Hance in Journ. Bot. 1885, p. 321: "*Thea Bohea,* Linn., really wild in Hainan," Rev. B. C. Henry.

In addition to the foregoing there is a fruit-bearing specimen of a species of *Camellia* in the Kew Herbarium (China, *Reeves*), with large leaves (six to seven inches long) like the common laurel; and flowering specimens (Ningpo, *Everard,* and Kiukiang, *Maries*) of a species closely resembling *C. rosæflora,* but having a hairy pistil. There is also (Lofaushan, *Ford*) a fruit-bearing specimen of a *Camellia* or *Pyrenaria.*

[*Vatica chinensis,* Linn. (*Dipterocarpeæ*) Mant. ii. p. 242; Smith, Ic. ined. t. 36, has been identified (Dyer in Hook. f. Fl. Brit. Ind. i. p. 302) with *V. Roxburghiana,* Blume, a species apparently restricted to the western peninsula of India and Ceylon.]

## 24. MALVACEÆ.

[*Althæa rosea,* Cav. (*Alcea rosea,* Linn.), the Hollyhock, is cultivated and subspontaneous in China and Japan. In Bot. Mag. t. 3198, it is said to have been introduced into Europe from China in 1753. *Althæa chinensis,* Wall. Cat. 2689 is a synonym. *Althæa sinensis,* Cav. Diss. ii. p. 92, t. 29. fig. 3, has not been identified, and is possibly not Chinese.]

1. **Malva parviflora,** *Linn. Amœn. Acad.* iii. p. 416; *DC. Prodr.* i. p. 433; *Masters in Hook. f. Fl. Brit. Ind.* i. p. 321.

Kiangsi: Kiukiang (*Shearer*!). Herb. Kew.

Very widely dispersed in the north temperate regions of the Old World, and now naturalized in many other parts.

2. **Malva sylvestris**, *Linn. Sp. Pl.* ed. 1, p. 689; *DC. Prodr.* i. p. 432; *Masters in Hook. f. Fl. Brit. Ind.* i. p. 320; *Debeaux, Fl. Tchef.* p. 32.

Malva mauritiana, *Linn. Sp. Pl.* ed. 1, p. 689; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469.

Malva mauritiana, β. sinensis, *DC. Prodr.* i. p. 432.

Malva sinensis, *Cav. Diss.* ii. p. 77, t. 25. fig. 4.

CHIHLI: near Peking (*Bunge*!); SHANTUNG: Chefoo (ex *Debeaux*); SHENSI (*Piasezki* ex *Maximowicz MSS.*). Herb. Kew.

Widely spread in the north temperate regions of the Old World.

3. **Malva verticillata**, *Linn. Sp. Pl.* ed. 1, p. 689; *DC. Prodr.* i. p. 433; *Lour. Fl. Cochinch.* p. 422; *Masters in Hook. f. Fl. Brit. Ind.* i. p. 320.

Malva pulchella, *Bernh.*; *Turcz. Fl. Ross.* i. p. 436; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469; *Franchet, Pl. David.* p. 58.

Malva chinensis, *Mill. Dict.* ed. 8, n. 6; *DC. Prodr.* i. p. 436.

CHIHLI: Peking (*Bretschneider*!); KIANGSI: Kiukiang (*Shearer*!); SHENSI (*Piasezki* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Widely spread in the northern temperate and subtropical regions of the Old World.

We have been able to identify Miller's *M. chinensis*, from a specimen in the Kew Herbarium, from Bishop Goodenough's herbarium, grown in the Chelsea Botanic Garden in 1732.

1. **Malvastrum tricuspidatum**, *A. Gray, Pl. Wright.* i. p. 16; *Benth. Fl. Hongk.* p. 32; *Seem. Bot. Voy. 'Herald,'* p. 365, *excl. syn.* Sida carpinifolia.

Malvastrum carpinifolium, *A. Gr. in Pl. Fendl.* p. 22 (*excl. syn.* Sida carpinifolia et S. planicaulis), *fide A. Gr. in Pl. Wright.* i. p. 16.

Malvastrum ruderale, *Hance in Walp. Ann.* iii. p. 830.

FOKIEN: Foochow (*Perry*!); HONGKONG (*Hance*!). Herb. Kew.

This is now very widely dispersed in tropical and subtropical and even some temperate regions, though believed to be of American origin.

1. **Sida acuta**, *Burm. Fl. Ind.* p. 137 (1768); *Benth. Fl. Hongk.* p. 32.

Sida carpinifolia, *Linn. f. Suppl.* p. 307 (1781); *DC. Prodr.* i. p. 461; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 323.

Sida Stauntoniana, *DC. Prodr.* i. p. 460, ex *Mast. loc. cit.*

Sida stipulata, *Cav. Diss.* i. p. 22, t. 3. fig. 10.

Malvastrum carpinifolium, *A. Gr. Pl. Fendl.* p. 22 (*quoad syn.* Sida carpinifolia, *Linn.*).

CHINA, without locality (*Macartney & Staunton*!); FORMOSA Tamsui (*Oldham*, 39 and 40!); FOKIEN: Amoy (*Hance*, 1471!) HONGKONG (*Wilford*! *Lamont*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Widely dispersed in the tropics, though hitherto not recorded from Australia.

2. **Sida cordifolia**, *Linn. Sp. Pl.* ed. 1, p. 684; *DC. Prodr.* i. p. 464; *Benth. Fl. Hongk.* p. 33; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 324.

CHINA, without locality (*Macartney & Staunton*! *Millett*! *Fortune*!); FORMOSA: Tamsui (*Oldham*, 43!); KWANGTUNG: Lappas Island (*Vachell*!); Pakhoi (*Playfair*!); HONGKONG (*Champion*! *Wright*! *Wilford*!). Mus. Brit.; Herb. Kew.

Widely diffused in tropical and subtropical countries.

3. **Sida fallax**, *Walp. Reliq. Meyen.* p. 306; *A. Gr. Bot. U.S. Expl. Exped.* i. p. 161; *Walp. Ann.* iv. p. 312; *Benth. Fl. Hongk.* p. 33.

Sida rotundifolia, *Hook. et Arn. Bot. Beech. Voy.* p. 79, *non Cav.*

HONGKONG (*Wright*!); KWANGTUNG: Pakhoi (*Playfair*!). Herb. Kew.

Cochinchina and northern Polynesia to the Sandwich Islands.

4. **Sida humilis**, *Willd. Sp. Pl.* iii. p. 744; *DC. Prodr.* i. p. 463; *Benth. Fl. Hongk.* p. 32; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 322.

CHINA, without locality (*Millett*!); FORMOSA (*Swinhoe*!); HONGKONG (*Hinds*! *Wright*! *Tate*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and America.

5. **Sida rhombifolia**, *Linn. Sp. Pl.* ed. 1, p. 684; *DC. Prodr.* i. p. 462; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 32.

Sida chinensis, *Retz. Obs.* iv. p. 29; *Walp. Rep.* i. p. 314.

Sida philippica, *DC. Prodr.* i. p. 462.

SOUTH CHINA, common. Mus. Brit.; Herb. Kew.

Tropical and subtropical regions of both hemispheres; common.

[*Sida spinosa*, Linn., a common tropical plant, is recorded from Canton by Osbeck, Voy., Eng. ed., i. p. 329.]

1. **Abutilon Avicennæ**, *Gærtn. Fruct.* ii. p. 251, t. 135. fig. 1; *Debeaux, Fl. Shangh.* p. 20, et *Fl. Tchef.* p. 33; *Hance in Journ. Bot.* 1883, p. 298; *Franchet, Pl. David.* p. 59.

Sida Abutilon, *Linn. Sp. Pl.* ed. 1, p. 685; *DC. Prodr.* i. p. 470.

Sida tiliæfolia, *Fisch. Cat. Hort. Gor.* ex *DC. Prodr.* i. p. 470; *Bunge, Enum. Pl. Chin. Bor.* p. 9.

CHIHLI: Peking (*Bretschneider*! SHANTUNG: Chefoo (ex *Debeaux*); KIANGSU: Shanghai (*Maingay*!); ANWHEI: Wuhu (*Bullock* ex *Hance*); CHEKIANG (*Fortune*!); KIANGSI: Kiukiang (*Shearer*!); SHENSI (*Piasezki* ex *Maximowicz MSS.*). Mus. Brit.; Herb. Kew.

Widely dispersed in Asia and extending westward to the south of Europe; also in Africa, North America, and Australia, but often existing only as a colonist. Often cultivated for its fibre.

2. **Abutilon indicum**, *G. Don, Gen. Syst.* i. p. 504; *Benth. Fl. Hongk.* p. 33.

Sida indica, *Linn.*, et Sida asiatica, *Linn. Sp. Pl.* ed. 2, p. 964; *DC. Prodr.* i. pp. 470 et 471.

Abutilon cysticarpum, *Hance in Walp. Ann.* ii. p. 157.

Abutilon graveolens, *Seem. Bot. Voy. 'Herald,'* p. 365, *non Wight et Arn.*

CHINA, without locality (*Millett*!); SHANTUNG: Chefoo (*hb. Forbes*!); CHEKIANG: Ningpo (*hb. Forbes*); KWANGTUNG (*Tate*!), Pakhoi (*Playfair*!); HONGKONG (*Hance*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and Australia.

[*Malachra*? *Urena*, DC. Prodr. i. p. 441; *Urena polyflora*, Lour. Fl. Cochinch. p. 417, Canton, has not been identified.]

1. **Urena lobata**, *Linn. Sp. Pl.* ed. 1, p. 692; *DC. Prodr.* i. p. 441; *Lour. Fl. Cochinch.* p. 416; *Benth. Fl. Hongk.* p. 34.

Urena diversifolia, *Walp. Rep.* v. p. 89.

Urena sinica, xanthii facie, *Dill. Hort. Elth.* p. 340, t. 319.

Common in the warmer parts of China, extending northward to Shanghai; and very widely spread in the warm regions of both hemispheres. Mus. Brit.; Herb. Kew.

2. **Urena procumbens**, *Linn. Sp. Pl.* ed. 1, p. 692; *Lour. Fl. Cochinch.* p. 417; *DC. Prodr.* i. p. 441.

CHINA.

3. **Urena sinuata,** *Linn. Sp. Pl.* ed. 1, p. 692; *Lour. Fl. Cochinch.* p. 417; *DC. Prodr.* i. p. 442; *Benth. Fl. Hongk.* p. 34.

HONGKONG (*Champion*! *Lind*! *Forbes*!). Mus. Brit.; Herb. Kew.

Tropics of both hemispheres, though hitherto not recorded from Australia.

[*Urena chinensis*, Osbeck, Voy., Eng. ed., i. p. 363, cited by Bretschneider ('Early Researches,' p. 93), has not been identified.]

1. **Hibiscus Abelmoschus,** *Linn. Sp. Pl.* ed. 1, p. 696; *DC. Prodr.* i. p. 452; *Benth. Fl. Hongk.* p. 34; *Hance in Journ. Bot.* 1878, p. 225.

FORMOSA (*Oldham*, 45!); KWANGTUNG (*Staunton*! *Hance*!); HONGKONG (*Champion*! *Wright*!). Mus. Brit.; Herb. Kew.

Tropical Asia, and cultivated in most hot countries.

2. **Hibiscus esculentus,** *Linn. Sp. Pl.* ed. 1, p. 696; *Lour. Fl. Cochinch.* p. 421; *DC. Prodr.* i. p. 450; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 343?

SZECHUEN (*Mesny*!). A fragment. Herb. Kew.

Native country uncertain; now cultivated and more or less colonized in most tropical countries.

[Forster in Osbeck Voy., Eng. ed., i. p. 328, records *Hibiscus ficulneus*, Linn., from Canton; but there is no Chinese specimen in the London herbaria.]

3. **Hibiscus mutabilis,** *Linn. Sp. Pl.* ed. 1, p. 694; *Lour. Fl. Cochinch.* p. 419; *DC. Prodr.* i. p. 452; *Hance in Journ. Bot.* 1879, p. 9; *Franchet, Pl. David.* p. 58; *Bot. Reg.* t. 589.

Hibiscus sinensis, *Mill. Dict.* ed. 8, n. 2.

Common in China, except the colder regions, and believed to be indigenous in some parts; but it is often cultivated, as in other warm countries.

4. **Hibiscus rosa-sinensis,** *Linn. Sp. Pl.* ed. 1, p. 694; *Lour. Fl. Cochinch.* p. 419; *DC. Prodr.* i. p. 448; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 334; *Bot. Mag.* t. 158.

FORMOSA (*Oldham*, 47!); KWANGTUNG: near Shatan, "certainly wild" (*Sampson*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

5. **Hibiscus surattensis,** *Linn. Sp. Pl.* ed. 1, p. 696; *DC. Prodr.* i. p. 449; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 334; *Hance in Journ. Bot.* 1878, p. 225.

HAINAN: at Hoitow (*Fogg*!). Herb. Kew.

Tropics of the Old World.

6. **Hibiscus syriacus,** *Linn. Sp. Pl.* ed. 1, p. 695; *Lour. Fl. Cochinch.* p. 418; *DC. Prodr.* i. p. 695; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 344; *Lindl. in Journ. Hort. Soc.* viii. p. 58 (var. chinensis).

Hibiscus chinensis, *DC. Prodr.* i. p. 455; *Braam. Ic. Pl. Chin.* 1821, t. 24.

Common in China, both wild and cultivated, as well as in India; also recorded from several localities in Asia Minor, but not recently in Syria. Mus. Brit.; Herb. Kew.

7. **Hibiscus tiliaceus,** *Linn. Sp. Pl.* ed. 1, p. 694; *Lour. Fl. Cochinch.* p. 418; *DC. Prodr.* i. p. 454; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 343.

CHINA, without locality (*Fortune*!); CHUSAN ARCHIPELAGO (*Jacob*!); FORMOSA: Tamsui (*Oldham*, 44!); HONGKONG (*Champion*! *Lamont*!). Mus. Brit.; Herb. Kew.

Tropics of both hemispheres, especially in maritime districts.

8. **Hibiscus Trionum,** *Linn. Sp. Pl.* ed. 1, p. 697; *DC. Prodr.* i. p. 453; *Franchet, Pl. David.* p. 59, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 203.

Hibiscus ternatus, *Cav. Diss.* iii. p. 172, t. 64. fig. 3; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469; *Debeaux, Fl. Tchef.* p. 32 (*cum* var. sinensi).

CHIHLI: Peking (*Bretschneider* in hb. Forbes!), Jehol (*David*, 2117!), along the Peiho (*Swinhoe*!); SHINGKING: Liao river (*Webster*!); SHANTUNG: Chefoo (*hb. Forbes*!). Mus. Brit.; Herb. Kew.

Very widely dispersed in the warm regions of the Old World.

1. **Gossypium arboreum,** *Linn. Sp. Pl.* ed. 1, p. 693; *DC. Prodr.* i. p. 456; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 347.

FOKIEN: Amoy, cult.? (*Fortune*, A. 116!). Herb. Kew.

2. **Gossypium herbaceum,** *Linn. Sp. Pl.* ed. 1, p. 963; *Lour. Fl.*

*Cochinch.* p. 415; *DC. Prodr.* i. p. 456; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 346.

Gossypium indicum, *Lam. Encycl.* ii. p. 134.

Gossypium religiosum, *Roxb. Fl. Ind.* iii. p. 185, *an Linn.?*

CHINA. Commonly cultivated and more or less colonized in many parts. The Nanking cotton is the produce of the variety or species named *religiosum* by Roxburgh. Mus. Brit.; Herb. Kew.

1. **Bombax malabaricum,** *DC. Prodr.* i. p. 479; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 349.

CHINA, without locality (*Staunton*!); HONGKONG (*Urquhart*!).

India; Java; Sumatra. Mus. Brit.; Herb. Kew.

1. **Eriodendron anfractuosum,** *DC. Prodr.* i. p. 479; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 350.

Bombax pentandrum, *Linn. Sp. Pl.* ed. 1, p. 511; *Lour. Fl. Cochinch.* p. 415; *Bretsch. Early Res.* p. 140.

CHINA (ex *Loureiro*).

Tropical Asia, Africa?, and America.

## 25. STERCULIACEÆ.

1. **Sterculia lanceolata,** *Cav. Diss.* p. 287, t. 143. fig. 1 (144 in tab.); *DC. Prodr.* i. p. 481; *Benth. Fl. Hongk.* p. 36; *Bot. Reg.* t. 1256.

Helicteres undulata, *Lour. Fl. Cochinch.* p. 531, ex *Spreng. Syst. Veg.* ii. p. 81.

CHINA, without locality (*Millett*! *Parker*!); KWANGTUNG: Canton (*Reeves*!), Macao (*Vachell*!); HONGKONG (*Champion*! *Lamont*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

2. **Sterculia nobilis,** *Smith in Rees, Cyclop.* no. 4; *DC. Prodr.* i. p. 482; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 358.

Sterculia Balanghas, *Ait. Hort. Kew,* ed. 2, v. p. 338, *non Linn.*

Sterculia monosperma, *Vent. Jard. Malm.* t. 91.

Southwellia nobilis, *Salisb. Parad. Lond.* t. 69, excl. synon.

CHINA, without locality (*Blake*! *Lay*!); HONGKONG (*Bowring* in herb. Hance, 1179!). Mus. Brit.; Herb. Kew.

Malabar?; Sumatra.

3. **Sterculia peltata,** *G. Don, Gen. Syst.* i. p. 517; *Walp. Rep.* ii. p. 795.

CHINA, without locality (*in herb. Lambert* ex *Don*).

4. **Sterculia platanifolia**, *Linn. f. Suppl.* p. 423; *DC. Prodr.* i. p. 483; *Benth. Fl. Hongk.* p. 36; *Kurz in Journ. Bot.* 1873, p. 193; *Debeaux, Fl. Tients.* p. 13, et *Fl. Shangh.* p. 21.

Hibiscus simplex, *Linn. Sp. Pl.* ed. 2, ii. p. 977.

Sterculia pyriformis, *Bunge, Enum. Pl. Chin. Bor.* p. 9; *Walp. Rep.* i. p. 335.

Firmiana platanifolia, *Schott et Endl. Meletem. Bot.* p. 33; *Walp. Rep.* v. p. 104.

CHIHLI: Peking (*Bunge*! *Bretschneider*!); KIANGSU: Shanghai (*Maingay*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 52!); SHENSI (*Piasezki* ex *Maximowicz*, *MSS.*); YUNNAN (*Anderson* ex *Kurz*); HONGKONG, naturalized (*Champion*!). Mus. Brit.; Herb. Kew.

Japan.

1. **Heritiera littoralis**, *Ait. Hort. Kew.* ed. 1, iii. p. 546; *DC. Prodr.* i. p. 484; *Benth. Fl. Hongk.* p. 36; *Maxim. in Engler, Jahrb.* vi. p. 61.

FORMOSA (*Oldham*, 51!); HONGKONG (*Hance*! *Lamont*!); LUCHU ARCHIPELAGO (*Tachiro* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Littoral in tropical Asia, Australia, Polynesia, and E. Africa.

1. **Reevesia thyrsoidea**, *Lindl. in Brande's Journ.* n. s. ii. p. 112, et *Bot. Reg.* t. 1236; *Fl. Hongk.* p. 37.

KWANGTUNG: Canton (*Reeves*!), Macao (*Millett*! *Vachell*!); HONGKONG (*Champion*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

1. **Kleinhovia Hospita**, *Linn. Sp. Pl.* ed. 2, p. 1365; *DC. Prodr.* i. p. 488; *Hance in Journ. Bot.* 1885, p. 322.

HAINAN (*Henry* ex *Hance*).

Now widely spread in tropical Asia, Africa, and Polynesia, though often existing only as a colonist.

1. **Helicteres angustifolia**, *Linn. Sp. Pl.* ed. 1, p. 963; *Osbeck's Voy.*, Eng. ed., i. p. 376, t. 5; *DC. Prodr.* i. p. 476; *Lour. Fl. Cochinch.* p. 530; *Benth. Fl. Hongk.* p. 37.

SOUTH-EASTERN CHINA and FORMOSA, common. Mus. Brit.; Herb. Kew.

Malayan peninsula and archipelago.

2. **Helicteres spicata**, *Colebr.* ex *G. Don, Gen. Syst.* i. p. 507;

*Walp. Rep.* i. p. 332; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 366.

KWANGTUNG: Canton (*Reeves*! *Millett*!). Mus. Brit.; Herb. Kew.

Widely dispersed in tropical Asia; often cultivated.

Var.? **hainanensis**, *Hance in Journ. Bot.* 1885, p. 322.

HAINAN (*B. C. Henry* ex *Hance*).

1. **Pterospermum heterophyllum**, *Hance in Journ. Bot.* 1868, p. 112.

Pterospermum acerifolium, *Benth. Fl. Hongk.* p. 39, *vix Willd.*

KWANGTUNG: in dense woods around a Buddhist temple, Filoitze, on the North river (*Sampson & Hance*, 13743!); HONGKONG (*Champion*!). Herb. Kew.

Flowers unknown; apparently different from the Indian *P. acerifolium.*

1. **Pentapetes phœnicea**, *Linn. Sp. Pl.* ed. 1, p. 698; *DC. Prodr.* i. p. 498; *Lour. Fl. Cochinch.* p. 409; *Bot. Reg.* t. 575.

CHINA, without locality (*Millett*!); cult. ex *Loureiro.* Herb. Kew.

Widely spread in India; cultivated in many countries.

1. **Melochia corchorifolia**, *Linn. Sp. Pl.* ed. 1, p. 675; *Hance in Journ. Bot.* 1878, p. 9; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 374.

Melochia concatenata, *Linn. loc. cit.*

Riedleia corchorifolia et R. concatenata, *DC. Prodr.* i. pp. 491, 492.

SOUTH-EASTERN CHINA and FORMOSA. Mus. Brit.; Herb. Kew.

A common tropical weed.

1. **Waltheria indica**, *Linn. Sp. Pl.* ed. 1, p. 673; *DC. Prodr.* i. p. 493; *Hance in Journ. Linn. Soc.* xiii. p. 100.

Waltheria americana, *Linn. loc. cit.*; *Benth. Fl. Hongk.* p. 38.

SOUTH-EASTERN CHINA. Mus. Brit.; Herb. Kew.

Very widely dispersed in tropical regions.

1. **Abroma fastuosum**, *Jacq. Hort. Vindb.* iii. (1776), p. 3, t. 1, non *Salisb. Parad. Lond.* t. 102, nec *DC. Prodr.* i. p. 485, nec *Gærtn. Fruct.* i. t. 64.

Theobroma augusta, *Linn. Syst. Nat.* ed. 12, App. p. 233.

**Ambroma augusta**, *Linn. f. Suppl.* p. 341; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 375, excl. syn. pro parte.

HONGKONG (*Urquhart!*). Herb. Kew.

Widely spread in tropical Asia, but frequently cultivated.

1. **Buettneria aspera**, *Colebr. in Roxb. Fl. Ind.*, Carey ed., ii. p. 383; *Benth. Fl. Hongk.* p. 39.

CHINA, without locality (*Millett!*); HONGKONG (*Champion! Wright!*). Mus. Brit.; Herb. Kew.

North India.

## 26. TILIACEÆ.

1. **Grewia affinis**, *Lindl. in Trans. Hort. Soc. Lond.* vi. p. 265; *Walp. Rep.* i. p. 360.

CHINA, ex *Lindley*.

This is referred to *G. Microcos* by Hooker and Arnott (Bot. Beech. Voy. p. 171).

2. **Grewia biloba**, *G. Don, Gen. Syst.* i. p. 549; *Walp. Rep.* ii. p. 800.

CHINA, ex *Don*.

3. **Grewia glabrescens**, *Benth. Fl. Hongk.* p. 42; *Walp. Ann.* vii. p. 443.

SZECHUEN (*Mesny!*); HONGKONG (*Wright! Hance*, 4483!). Herb. Kew.

4. **Grewia hirsuta**, *Vahl, Symb.* i. p. 34; *DC. Prodr.* i. p. 509; *Hance in Journ. Bot.* 1878, p. 225.

KWANGTUNG: West river and North river (*Sampson & Hance* ex *Hance*).

Southern provinces of the Western peninsula of India and Ceylon.

5. **Grewia Microcos**, *Linn. Syst. Veg.* ed. 12, p. 602; *DC. Prodr.* i. p. 510; *Benth. Fl. Hongk.* p. 42.

Arsis rugosa, *Lour. Fl. Cochinch.* p. 336?

Fallopia nervosa, *Lour. Fl. Cochinch.* p. 336; *Hance in Journ. Bot.* 1871, p. 239.

Grewia Stauntoniana, *G. Don, Gen. Syst.* i. p. 551.

SOUTH-EASTERN CHINA, common. Mus. Brit.; Herb. Kew.

Throughout India; also in Ceylon and Java.

6. **Grewia nitida**, *Juss. in Ann. Mus. Par.* iv. p. 90, t. 47. fig. 2; *DC. Prodr.* i. p. 510.

CHINA, ex *Jussieu*. Cultivated specimen in Herb. Kew.

We have seen no wild specimen of this very distinct species.

7. **Grewia parviflora**, *Bunge, Enum. Pl. Chin. Bor.* p. 9; *Walp. Rep.* i. p. 360; *Hance in Journ. Bot.* 1882, p. 3; *Franchet, Pl. David.* p. 59.

CHIHLI: near Peking (*Bunge*! *Bretschneider*!); SHANTUNG (*Maingay*!); KIANGSU: Chinkiang (*Bullock*!); KIANGSI: Kiukiang (*Shearer*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz, MSS.*); COREAN ARCHIPELAGO (*Oldham*!). Mus. Brit.; Herb. Kew.

8. **Grewia piscatorum**, *Hance in Ann. Sc. Nat.* 5e sér. xv. p. 208.

FOKIEN: Lamyet Island (*Swinhoe*!). Herb. Kew.

Oldham's 55/1 from Formosa is near this, and possibly a small-leaved state of *G. parviflora*.

9. **Grewia polygama**, *Roxb. Fl. Ind.* ii. p. 588; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 391.

KWANGTUNG: Pakhoi (*Playfair*!). Herb. Kew.

India, from the north-west to Ceylon and Pegu, and in North Australia.

1. **Triumfetta pilosa**, *Roth, Nov. Sp.* p. 223; *DC. Prodr.* i. p. 506; *Benth. Fl. Hongk.* p. 41.

HONGKONG (*Champion*! *Lamont*!). Mus. Brit.; Herb. Kew.

Tropical Asia and Africa.

2. **Triumfetta rhomboidea**, *Jacq. Sel. Stirp. Am.* p. 147, t. 90; *DC. Prodr.* i. p. 507; *Mast. in Hook. f. Fl. Brit. Ind.* i. p. 395.

Triumfetta angulata, *Lam. Encycl.* iii. p. 421; *Benth. Fl. Hongk.* p. 41.

SOUTH-EASTERN CHINA, common; and in FORMOSA. Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and America.

1. **Corchorus acutangulus**, *Lam. Encycl.* ii. p. 104; *DC. Prodr.* i. p. 505; *Benth. Fl. Hongk.* p. 40.

Generally dispersed in hot countries. Mus. Brit.; Herb. Kew.

2. **Corchorus capsularis**, *Linn. Sp. Pl.* ed. 1, p. 529; *DC. Prodr.* i. p. 505; *Benth. Fl. Hongk.* p. 40.

HONGKONG &c. Mus. Brit.; Herb. Kew.

Commonly cultivated for its fibre, and now found wild in almost all warm countries; uncertain where truly indigenous.

1. **Corchoropsis crenata**, *Sieb. et Zucc. in Abhandl. Akad. Münch.* iii. p. 738, t. 4; *Franchet, Pl. David.* p. 59, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 203.

CHIHLI: Peking (*Bretschneider*!); SHANTUNG: Chefoo (*hb. Forbes*!); CHUSAN (*Cunningham*! in herb. Sloane, xciv. 146); KIANGSI: Kiukiang (*Shearer*!); KWANGTUNG: Lofaushan mountains (*Ford*!). Mus. Brit.; Herb. Kew.

Japan.

1. **Tilia mandshurica**, *Rupr. et Maxim. in Mél. Biol.* ii. p. 412; *Maxim. Prim. Fl. Amur.* p. 62, et *in Mél. Biol.* x. p. 586; *Baker & S. Moore in Journ. Linn. Soc.* xvii. p. 380; *Franchet, Pl. David.* p. 60.

Tilia pekinensis, *Rupr. in Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469.

Tilia argentea, *Bayer, Monogr. Til.* p. 48, t. 9. fig. 3 (*sub* T. pekinensis), ex *Franchet.*

CHIHLI: Jehol (*David*, 1938!), Peking mountains (*David*, 2336, ex *Franchet*); SHINGKING: Chienshan (*Ross*!). Herb. Kew.

Mandshuria; Japan.

2. **Tilia mongolica**, *Maxim. in Mél. Biol.* x. p. 585; *Franchet, Pl. David.* p. 60.

CHIHLI: Jehol (*David*, 1923!), Pohuashan (*Bretschneider*!). Herb. Kew.

Southern Mongolia.

1. **Echinocarpus sinensis**, *Hance in Journ. Bot.* 1884, p. 108.

KWANGTUNG: Lofaushan (*Faber* ex *Hance*).

1. **Elæocarpus chinensis**, *Hook. f. in Benth. Fl. Hongk.* p. 43.

Friesia chinensis, *Gard. et Champ. in Hook. Kew Journ. Bot.* i. p. 243; *Walp. Ann.* ii. p. 174.

KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wright*!). Herb. Kew.

2. **Elæocarpus decipiens**, *Hemsl.*, n. sp.

*E. photiniæfolio* affinis, differt imprimis foliis tenuioribus an-

gustioribus confertioribus, floribus minoribus multo numerosioribus; *E. lanceæfolio* etiam affinis sed fructu ovali-oblongo vix ¾ poll. longo.—E. photiniæfolius, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* i. p. 56; *Miq. Ann. Mus. Bot. Lugd.-Bat.* iii. p. 17, *non Hook. et Arn.*

LUCHU ARCHIPELAGO (*Wright!*); KWANGTUNG (*Reeves!*); FORMOSA (*Oldham*, 54)? Herb. Kew.

3. **Elæocarpus Henryi**, *Hance in Journ. Bot.* 1885, p. 322.

KWANGTUNG: North River (*B. C. Henry* ex *Hance*).

4. **Elæocarpus japonicus**, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 57; *Maxim. in Engler, Jahrb.* vi. p. 61.

LUCHU ARCHIPELAGO (*Wright! Döderlein* ex *Engler*). Herb. Kew.

Japan.

5. **Elæocarpus lanceæfolius**, *Roxb. Fl. Ind.* ii. p. 598; *Benth. Fl. Hongk.* p. 42.

Elæocarpus serrulatus, *Benth. in Kew Journ. Bot.* iii. p. 263, *non Linn.*

FORMOSA: Kelung (*Ford!*); HONGKONG (*Champion! Wright! Lamont!*).

Widely dispersed in India, and also found in Java.

## 27. LINEÆ.

1. **Linum nutans**, *Maxim. in Mél. Biol.* x. p. 581.

KANSUH: near Dadshan (*Przewalski* ex *Maxim.*).

2. **Linum perenne**, *Linn. Sp. Pl.* ed. 1, p. 277; *Planch. in Hook. Lond. Journ. Bot.* vii. p. 173; *Franchet in Bull. Soc. Bot. France*, xxxii. p. 5.

YUNNAN: Mosoyun (*Delavay* ex *Franchet*).

Generally diffused in north temperate regions, and colonized in southern countries.

3. **Linum stelleroides**, *Planch. in Hook. Lond. Journ. Bot.* vii. p. 178; *Walp. Ann.* ii. p. 117; *Franchet, Pl. David.* p. 61; *Debeaux, Fl. Tchef.* p. 31 (var. salsuginosum); *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 204.

Linum davuricum, *Miq. in Ann. Mus. Lugd.-Bat.* ii. p. 260, *non Schult.*, *teste Franch. et Sav. Enum. Pl. Jap.* i. p. 68.

CHINA, without locality (*Fortune!*); CHIHLI: Jehol (*David!*),

near Peking (*Bushell* ! *Bretschneider* !), Summer Palace, Peking (*Williams* !); SHINGKING: Peiling (*Webster* !); SHANTUNG: Chefoo (*hb. Forbes* !); COREAN ARCHIPELAGO: Green Island (*Oldham*, 1092 !). Mus. Brit.; Herb. Kew.

1. **Reinwardtia trigyna**, *Planch. in Hook. Lond. Journ. Bot.* vii. (1848) p. 522; *Hook. f. Fl. Brit. Ind.* i. p. 412.

Linum trigynum, *Roxb. Fl. Ind.*, Carey ed., ii. p. 110; *Bot. Mag.* t. 1100; *Hance in Journ. Bot.* 1882, p. 3.

HUPEH: Ichang (*Watters* ex *Hance*); SZECHUEN: Chungking (*Bourne* !). Herb. Kew.

The Punjab to Sikkim, and in the hills of the western peninsula of India.

1. **Erythroxylon monogynum**, *Roxb. Corom. Pl.* i. t. 88, et *Fl. Ind.*, Carey ed., ii. p. 449; *Hook. f. Fl. Brit. Ind.* i. p. 414.

Lethia indica, *DC. Prodr.* i. p. 576; *Hook. et Arn. Bot. Beech. Voy.* p. 174.

CHINA (*Beechey*).

Western peninsula of India and Ceylon.

1. **Ixonanthes chinensis**, *Champ. in Trans. Linn. Soc.* xxi. p. 114, t. 13; *Benth. in Hook. Kew Journ. Bot.* iii. p. 308 (*in Benth. Fl. Hongk. omissa*); *Hance in Journ. Bot.* 1882, p. 258.

KWANGTUNG: North river (*B. C. Henry* ex *Hance*); HONGKONG (*Champion* ! *Wright* ! *Ford* !). Herb. Kew.

## 28. MALPIGHIACEÆ.

1. **Hiptage Madablota**, *Gærtn. Fruct.* ii. p. 169, t. 116; *DC. Prodr.* i. p. 583; *Benth. Fl. Hongk.* p. 49.

FORMOSA: Tamsui (*Oldham*, 56 !); HONGKONG (*Champion* ! *Lamont* !); HAINAN (*Swinhoe* !). Mus. Brit.; Herb. Kew.

Tropical India and Malaya.

2. **Hiptage obtusifolia**, *DC. Prodr.* i. p. 583; *Benth. Fl. Hongk.* p. 49, *in nota sub* H. Madablota; *Hook. f. Fl. Brit. Ind.* i. p. 418, *in nota sub* H. Madablota; *Kurz, For. Fl. Brit. Burm.* i. p. 173.

YUNNAN: Ponlin (*Anderson* !). Herb. Kew.

Birma.

## 29. ZYGOPHYLLEÆ.

1. **Tribulus cistoides**, *Linn. Sp. Pl.* ed. 1, p. 387; *DC. Prodr.* i. p. 703; *Hook. f. Fl. Brit. Ind.* i. p. 423.

HAINAN (*Swinhoe*!). Herb. Kew.

Throughout the warmer regions of both hemispheres.

2. **Tribulus terrestris**, *Linn. Sp. Pl.* ed. 1, p. 387; *DC. Prodr.* i. p. 703; *Lour. Fl. Cochinch.* p. 270; *Franchet, Pl. David.* p. 62, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 204; *Debeaux, Fl. Tients.* p. 14, et *Fl. Tchef.* p. 38.

CHIHLI and southward, common. Mus. Brit.; Herb. Kew.

Throughout the tropics and far into some temperate regions.

1. **Zygophyllum mucronatum**, *Maxim. in Mél. Biol.* xi. p. 175.

KANSUH (*Piasezki* ex *Maximowicz*).

1. **Nitraria Schoberi**, *Linn. Sp. Pl.* ed. 2, p. 638; *DC. Prodr.* iii. p. 456; *Hance in Journ. Bot.* 1883, p. 296.

SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*).

Syria to China.

1. **Sarcozygium xanthoxylum**, *Bunge in Linnæa*, xvii. p. 8, t. 1; *Walp. Rep.* v. p. 385; *Hance in Journ. Bot.* 1882, p. 258.

KANSUH; Hami (*Mesny* ex *Hance*).

Mongolia.

## 30. GERANIACEÆ.

1. **Biebersteinia heterostemon**, *Maxim. in Mél. Biol.* xi. p. 176.

KANSUH (*Piasezki*; *Przewalski* ex *Maximowicz*).

1. **Geranium davuricum**, *DC. Prodr.* i. p. 642; *Maxim. in Mél. Biol.* x. p. 618; *Franchet, Pl. David.* p. 64.

Geranium pseudosibiricum, *Maxim. Prim. Fl. Amur.* p. 71, et G. bifolium, *id. ibid.* p. 469, *nec aliorum.*

CHIHLI: Jehol (*Tatarinow* ex *Maximowicz*), Pohuashan (*Bretschneider*, in hb. Forbes!); KANSUH (*Przewalski* ex *Maximowicz*).

Dahuria; Mandshuria; Japan.

2. **Geranium eriostemon**, *Fisch. in DC. Prodr.* i. p. 641; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469, et *in Mél. Biol.* x. p. 628; *Franchet, Pl. David.* p. 63.

CHIHLI: Jehol (*David*, 2154!), Pohuashan (*Kirilow*! *Bretschneider*), Siaowutaishan (*Hancock*! *Moellendorf*!); KANSUH (*Przewalski* ex *Maximowicz*). Herb. Kew.

Dahuria and Baical to Japan.

3. **Geranium nepalense**, *Sweet, Geran.* t. 12; *DC. Prodr.* i. p. 643; *Debeaux, Fl. Tchef.* p. 37; *Maxim. in Mél. Biol.* x. p. 615; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 204.

Geranium Thunbergii, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* i. p. 136 (*nomen tantum*); *Paxt. Fl. Gard.* i. p. 186, fig. 115.

SHINGKING: Chienshan (*Ross*!); SHANTUNG: Chefoo (*hb. Forbes*!); KIANGSI; Kiukiang (*Shearer*!); YUNNAN (*Anderson*!). Herb. Kew.

Mountains of Northern India to Japan.

4. **Geranium pratense**, *Linn. Sp. Pl.* ed. 1, p. 681; *DC. Prodr.* i. p. 641; *Maxim. in Mél. Biol.* x. p. 632.

CHIHLI: Siaowutaishan (*Hancock*!); KANSUH (*Przewalski* ex *Maximowicz*).

Western Europe to China.

5. **Geranium Pylzowianum**, *Maxim. in Mél. Biol.* x. p. 633.

KANSUH (*Przewalski* ex *Maximowicz*).

6. **Geranium sibiricum**, *Linn. Sp. Pl.* ed. 1, p. 683; *DC. Prodr.* i. p. 639; *Maxim. Mél. Biol.* x. p. 617; *Franchet, Pl. David.* p. 62.

NORTH CHINA, without locality (*Daniell*!); CHIHLI: Peking (*Bretschneider*!), Jehol (*David*, 2087, ex *Franchet*). Mus. Brit.; Herb. Kew.

Caucasus and Ural eastward.

7. **Geranium Wilfordi**, *Maxim. in Mél. Biol.* x. p. 614?; *Franchet, Pl. David.* p. 63.

CHIHLI: Jehol (*David*, 2058, ex *Franchet*).

Mandshuria.

8. **Geranium Vlassovianum**, *DC. in Mém. Soc. Phys. et Hist. Nat.* i. p. 441, et *Prodr.* i. p. 641; *Maxim. in Mél. Biol.* x. p. 626 ("Wlassowianum, *Fisch.*"); *Franchet, Pl. David.* p. 64.

CHIHLI: Pohuashan (*David*, 2244, ex *Franchet*).

Dahuria eastward.

1. **Erodium Stephanianum**, *Willd. Sp. Pl.* iii. p. 625; *DC. Prodr.* i. p. 645; *Maxim. in Mél. Biol.* x. p. 636, et *Fl. As. Or. Fragm.* p. 7; *Debeaux, Fl. Tchef.* p. 37; *Franchet, Pl. David.* p. 64.

CHIHLI: near Peking (*Staunton*! *Bushell*! *Bretschneider*! *Hancock*!); SHINGKING: Kaichow to Kiuchow (*Ross*!), Peiling (*Webster*!); SHANTUNG: Chefoo (*hb. Forbes*!); COREA (*Perry*!). Mus. Brit.; Herb. Kew.

Tibet; Siberia.

1. **Oxalis Acetosella,** *Linn. Sp. Pl.* ed. 1, p. 433; *DC. Prodr.* i. p. 700; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 380.

SHINGKING: Shingking (*Ross*!). Herb. Kew.

All round the north temperate zone.

2. **Oxalis corniculata,** *Linn. Sp. Pl.* ed. 1, p. 435; *Lour. Fl. Cochinch.* p. 285; *DC. Prodr.* i. p. 692; *Benth. Fl. Hongk.* p. 56; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 380; *Franchet, Pl. David.* p. 65; *Hance in Walp. Ann.* iii. p. 839 (β. lurida).

Cosmopolitan in warm countries. Mus. Brit.; Herb. Kew.

3. **Oxalis Griffithii,** *Edgew. et Hook. f. in Hook. f. Fl. Brit. Ind.* i. p. 436; *S. Moore in Journ. Bot.* 1875, p. 230.

KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

Eastern Himalaya and Khasia mountains.

4. **Oxalis Martiana,** *Zucc. Oxal. Nachtr.* p. 27; *Benth. Fl. Hongk.* p. 56.

A Brazilian species colonized in many warm countries, including Hongkong.

5. **Oxalis stricta,** *Linn. Sp. Pl.* ed. 1, p. 435; *DC. Prodr.* i. p. 692.

Oxalis fontana, *Bunge, Enum. Pl. Chin. Bor.* p. 13; *Walp. Rep.* i. p. 476.

CHIHLI: Peking (*Bushell*! *Bunge*!); SHINGKING: Talienhwan (*Birnie*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); KIANGSU: Tahoo Lake (*hb. Forbes*!); CHEKIANG: Ningpo (*hb. Forbes*!). Herb. Kew.

Widely dispersed.

6. **Oxalis obtriangulata,** *Maxim. in Mél. Biol.* vi. p. 260; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 380.

SHINGKING: Kwandien mountains (*Ross*!). Herb. Kew.

Mandshuria, Japan.

1. **Biophytum Reinwardtii,** *Edgew. et Hook. f. in Hook. f. Fl. Brit. Ind.* i. p. 437.

Oxalis Reinwardtii, *Zucc. in Abhand. Bayer. Akad.* i. p. 274; *Walp. Rep.* i. p. 476; *Hance in Journ. Bot.* 1879, p. 9, partim.

KWANGTUNG: banks of the West river (*Hance*, 4834!). Herb. Kew.

India; Java.

2. **Biophytum sensitivum**, *DC. Prodr.* i. p. 690; *Hook. f. Fl. Brit. Ind.* i. p. 436.

Oxalis sensitiva, *Linn. Sp. Pl.* ed. 1, p. 434; *Lour. Fl. Cochinch.* p. 285; *Lindl. in Bot. Reg.* 1845, t. 68?

CHINA, without locality (*Fortune* ex *Lindley*); KWANGTUNG: near Macao (*Hance*, 4834, in part!). Herb. Kew.

Very widely diffused in the tropics of both hemispheres.

1. **Averrhoa Carambola**, *Linn. Sp. Pl.* ed. 1, p. 428; *DC. Prodr.* p. 689; *Lour. Fl. Cochinch.* p. 288; *Benth. Fl. Hongk.* p. 56.

KWANGTUNG: Macao (*Millett*!); HONGKONG (*Wright*! *Harland*!). Herb. Kew.

Now widely dispersed; native country uncertain, probably America.

Osbeck (Voy., Eng. ed., i. p. 306) cites *Averrhoa Bilimbi*, Linn., perhaps by mistake for *A. Carambola*.

1. **Impatiens arguta**, *Hook. f. et T. Thoms. in Journ. Linn. Soc.* iv. p. 137; *Hook. f. Fl. Brit. Ind.* i. p. 470.

YUNNAN: Momein (*Anderson*!). Herb. Kew.

Bhotan, Sikkim, and Khasia mountains.

There is a very imperfect specimen of a second species on the same sheet, which we were unable to identify with any published one, but it is insufficient for description.

2. **Impatiens Balsamina**, *Linn. Sp. Pl.* ed. 1, p. 938; *Lour. Fl. Cochinch.* p. 312; *Hook. f. Fl. Brit. Ind.* i. p. 453.

Balsamina hortensis, *Desf. in Dict. Sc. Nat.* iii. p. 485; *DC. Prodr.* i. p. 485.

SHANTUNG (*Fauvel* ex *Franchet*); FOKIEN: Amoy (*Cunningham* in herb. Sloane, cclxvii. p. 20!); KWANGTUNG: Macao (*Tate*!). Herb. Kew.

Common throughout tropical and subtropical India and Malaya, often only as an escape from cultivation, as it probably is in China.

3. **Impatiens chinensis**, *Linn. Sp. Pl.* ed. 1, p. 937; *Lour. Fl. Cochinch.* p. 511; *Benth. Fl. Hongk.* p. 55.

Impatiens fasciculata, *Lam.*; *Wight, Ic. Pl. Ind. Or.* t. 748.
Balsamina chinensis, *DC. Prodr.* i. p. 686.

CHINA, without locality (*Parkes*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Harland*! *Hance*! *Lamont*!). Mus. Brit.; Herb. Kew.

4. **Impatiens cochleata**, *Lour. Fl. Cochinch.* p. 512.
Balsamina cochleata, *DC. Prodr.* i. p. 666.

KWANGTUNG: Canton, cult. (ex *Loureiro*).

Loureiro describes the flowers of this with "nectario magno compresso in spiram convoluto," a condition not exhibited by any of the Chinese species under observation.

5. **Impatiens Davidi**, *Franchet, Pl. David.* p. 65.

KIANGSI: Kiukiang (*David*, 890, ex *Franchet*).

6. **Impatiens furcillata**, *Hemsl.*, n. sp.

Planta habitu foliisque *I. parvifloræ* simillima, differt pedunculis multo brevioribus subtrifloris, floribus triplo majoribus calcari longo curvato furcillato.

*Caulis* ramosus, subcarnosus, glaber. *Folia* alterna, petiolata, tenuissima, leviter oblique ovato-oblonga, usque ad 6 poll. longa et 2 poll. lata, crenato-dentata, crenis apiculatis. *Pedunculi* gracillimi, 1–2 pollicares. *Flores* absque calcari recurvo 1 poll. longi; sepala lateralia viridia, late fere rotundato-ovata, acuminata; sepalum saccatum coloratum, tabæforme, calcari longo gracili; petala lateralia longe exserta.

COREA: Gensan (*Perry*!); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 123!). Herb. Kew.

7. **Impatiens mutila**, *Lour. Fl. Cochinch.* p. 512.
Balsamina mutila, *DC. Prodr.* i. p. 686.
"Culta in Cochinchina, puto quod a Sinis translata," *Loureiro.*

8. **Impatiens nolitangere**, *Linn. Sp. Pl.* ed. 1, p. 938; *DC. Prodr.* i. p. 687; *Franchet, Pl. David.* p. 65.

CHIHLI: near Peking (*Bretschneider*!); SHINGKING: Chienshan (*Ross*!); COREA: north-east coast (*Perry*!). Herb. Kew.

Europe, Asia Minor, Siberia, Japan.

9. **Impatiens plebeja**, *Hemsl.*, n. sp.

*Planta* pedalis et ultra, glabra, caulibus simplicibus crassiusculis usque ad pedalibus. *Folia* omnia alterna, petiolata, membranacea, lanceolata, 4–6 poll. longa, utrinque valde attenuata, acutissima, crenata simul calloso- vel glanduloso-serrulata. *Pedun*-

*culi* axillares, 1–2 poll. longi, 3–4-flori, parvibracteati. *Flores* mediocres (bene evoluti non visi); sepala lateralia colorata, oblique ovato-oblonga, vix acuta; sepalum saccatum late cucullatum, petala ut videtur æquans, calcari brevi crasso obtusissimo bigibbo arcte recurvo; petala parva.

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

10. **Impatiens Textori,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 76; *Franch. et Sav. Enum. Pl. Jap.* i. p. 70.

COREA: Soul mountains (*Carles*!). Herb. Kew.

Japan.

11. **Impatiens tubulosa,** *Hemsl.*, n. sp.

*Folia* suprema subverticillata, breviter petiolata, membranacea, lanceolata, 4–5-poll. longa, calloso-denticulata. *Pedunculi* subtriflori, foliis paulo breviores, pedicellis gracilibus. *Flores* 2–2½ poll. longi; sepalum saccatum infra insertionem 2 poll. productum, ventricoso-infundibuliforme, subite caudato-calcaratum; petala breviter exserta.

FOKIEN: Amoy interior (*Swinhoe*!). Herb. Kew.

A very distinct species, though the specimen is insufficient for a full description.

Hance (Journ. Bot. 1885, p. 322) records a probable new species from the Lienchau river, Canton.

## 31. RUTACEÆ.

1. **Ruta dahurica,** *DC. Prodr.* i. p. 712; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 470.

CHIHLI: Peking (ex *Maximowicz*).

Dahuria and Mongolia.

One or more varieties of *Ruta graveolens*, Linn. (*R. chalepensis*, Linn., Lour. Fl. Cochinch. p. 269; *R. angustifolia*, Pers., Hook. et Arn. Bot. Beech. Voy. p. 175; *R. bracteosa*, DC., Bretschn. Early Res. p. 141), are cultivated, and perhaps colonized, in China.

1. **Bœnninghausenia albiflora,** *Reichb. Conspect. Reg. Veg.* p. 197; *Hook. f. Fl. Brit. Ind.* i. p. 486; *Hance in Journ. Bot.* 1874, p. 259; *Franchet, Pl. David.* p. 66.

CHEKIANG: Ningpo (*hb. Forbes*!); KIANGSI: Kiukiang (*David*, 743! *Shearer*! *Moellendorf*!). Mus. Brit.; Herb. Kew.

Himalayas to Japan.

PSILOPEGANUM, *Hemsl.*, gen. nov.

*Calyx* 4-partitus, persistens. *Petala* 4, sessilia, oblongo-ovalia, integerrima. *Discus* parvus, fere obsoletus. *Stamina* 8, alterna breviora, filamentis subulatis; antheræ oblongæ. *Ovarium* sessile, alte bilobum, lobis 1-locularibus; stylus unicus, stigmate simplici; ovula in loculis 5–6, placentis a medio loculi pendulis affixa. *Cocci* 2, basi connati, divergentes, membranacei, inflati, apice (ventre) dehiscentes. *Semina* reniformia, testa cinerea, crustacea, scrobiculata; albumen carnosum; embryo teres, curvus.—*Herba* perennis, glanduloso-punctata, caulibus numerosis gracilibus. *Folia* alterna, trifoliolata. *Flores* parvi, solitarii, extra-axillares, graciliter pedunculati.

1. **Psilopeganum sinense**, *Hemsl.*, n. sp. (Plate III.)

*Planta* circiter sesquipedalis, undique glaberrima, caulibus ramulisque fere filiformibus erectis. *Foliola* breviter petiolulata, tenuissima, leviter inæqualia, ovalia, oblonga, ovata vel obovata, maxima vix pollicaria, obtusiuscula, subtus pallidiora, margine leviter revoluta crebre glandulosa, lateralia interdum leviter obliqua; petioli atque pedunculi filiformes, 6–9 lineas longi. *Flores*, ut videtur, albi, 3–4 lineas diametro; calycis segmenta obtusa. *Fructus* late bilobus fere reniformis, 4–5 lineas latus.

HUPEH: Ichang Gorge (*Maries*!), near Ichang (*A. Henry*!); SZECHUEN: Chungking (*Bourne*!). Mus. Brit.; Herb. Kew.

This differs from *Bœnninghausenia*, which it very strongly resembles in general appearance, in having trifoliolate leaves, solitary extra-axillary flowers, a very small disk, and a sessile two-celled ovary. *Thamnosma* has a dimerous pistil, associated with simple leaves and a very different habit.

1. **Peganum Nigellastrum**, *Bunge, Enum. Pl. Chin. Bor.* p. 13; *Hance in Journ. Linn. Soc.* xiii. p. 76.

NORTH CHINA, without locality (*Bunge*!); CHIHLI: Chatau (*Williams* ex *Hance*). Herb. Kew.

Mongolia.

1. **Dictamnus albus**, *Linn. Sp. Pl.* ed. 1, p. 383; *Hook. f. Fl. Brit. Ind.* i. p. 487.

Dictamnus Fraxinella, *Pers. Syn. Pl.* i. p. 464; *DC. Prodr.* i. p. 712; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 380.

SHINGKING: west of Hingjing (*Ross*!); COREA: Port Chusan (*Wilford*!); Chemulpo (*Carles*!). Herb. Kew.

Western Europe to Japan.

1. **Evodia Daniellii**, *Hemsl.*

Zanthoxylum (Oxyactis) Daniellii, *Benn. in Ann. Nat. Hist.* ser. 3, x. (1862), p. 201, t. 5.

CHIHLI: Peking mountains (*Bretschneider*!); SHINGKING: Talienwhan (*Daniell*! *Swinhoe*? hb. Hance, 311); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

This may be the same as *Zanthoxylum Bretschneideri*, Maxim., though it sometimes at least has two superposed seeds in each carpel, and one leaf has seven leaflets. See note under that plant, p. 105.

2. **Evodia meliæfolia**, *Benth. Fl. Hongk.* p. 58; *Hook. f. Fl. Brit. Ind.* i. p. 490.

Boymia glabrifolia, *Champ. in Hook. Kew Journ. Bot.* iii. p. 330; *Seem. Bot. Voy. 'Herald,'* p. 370.

Megabotrya meliæfolia, *Hance in Walp. Ann.* ii. p. 259.

Evodia glauca, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 23.

CHINA: without locality (*Millett*! *Parkes*!); KIANGSI: Kiu kiang (*Shearer*!); HONGKONG (*Champion*! *Hance*!). Mus. Brit.; Herb. Kew.

Assam.

3. **Evodia rutæcarpa**, *Benth. Fl. Hongk.* p. 59 (*in nota sub* E. meliæfolia); *Hook. f. Fl. Brit. Ind.* i. p. 490.

Boymia rutæcarpa, *Adr. Jus.* ex *Sieb. et Zucc. Fl. Jap.* i. p. 50, t. 21.

KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

Himalayas; Japan.

4. **Evodia triphylla**, *DC. Prodr.* i. p. 724; *Hook. f. Fl. Brit. Ind.* p. 488.

Evodia Lamarckiana, *Benth. Fl. Hongk.* p. 59.

Fagara triphylla, *Lam. Encycl.* ii. p. 447.

Zanthoxylum Lamarckianum, *Cham. et Schl. in Linnæa*, v. p. 58.

Zanthoxylum pteleæfolium, *Champ. in Hook. Kew Journ. Bot.* iii. p. 330; *Walp. Ann.* iv. p. 415.

Lepta triphylla, *Lour. Fl. Cochinch.* p. 82.

FORMOSA: Tamsui (*Oldham*, 61, 62!); HONGKONG (*Wilford*! *Champion*! *Wright*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Eastern India, Malaya, Bonin Islands, and Japan.

1. **Zanthoxylum ailanthoides,** *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 30; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 22.

FORMOSA: Tamsui (*Oldham*, 58!). Mus. Brit.; Herb. Kew.

Japan.

2. **Zanthoxylum alatum,** *Roxb. Fl. Ind.* iii. p. 768; *Hook. f. Fl. Brit. Ind.* i. p. 493; *Hanb. in Journ. Linn. Soc.* vii. p. 171.

Zanthoxylum Bungei, *Hance in Ann. Sc. Nat.* 5ᵉ sér. v. p. 209.

Zanthoxylum planispinum, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 30; *Franchet, Pl. David.* p. 67.

KIANGSU: Shanghai (*Maingay*!); CHEKIANG: Kianang (*Staunton*!), Hangchow (*hb. Hanbury*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Hance*, 1480 in part!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*!). Mus. Brit.; Herb. Kew.

Himalayas, from the Punjab eastward.

3. **Zanthoxylum Avicennæ,** *DC. Prodr.* i. p. 726; *Benth. Fl. Hongk.* p. 58.

Zanthoxylum lentiscifolium, *Champ. in Hook. Kew Journ. Bot.* iii. p. 329, *non* Z. lentiscifolium, *Anders.*

Zanthoxylum piperitum, *Benn. in Ann. Nat. Hist.* ser. 3, x. (1862), p. 199, *non DC.*

Zanthoxylum Clava-Herculis, *Lour. Fl. Cochinch.* p. 659? *non Linn.*

CHINA, without locality (*Staunton*! *Reeves*! *Millett*! *Beechey*!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Lamont*! *Wilford*! *Champion*!). Mus. Brit.; Herb. Kew.

4. **Zanthoxylum Bretschneideri,** *Maxim. in Mél. Biol.* xi. p. 655.

CHIHLI: Shangfangshan (*Bretschneider* ex *Maximowicz*).

In the Kew Herbarium are specimens of a tree collected on the Peking mountains by Bretschneider, which we have referred to *Evodia Daniellii*, and, from the description, we suspect that this may be the same, though the author states that in this the carpels are not stellately arranged and the seeds neither two nor superposed. Bennett's original specimen bears quite ripe fruit with the carpels very wide open, hence their more stellate appearance. There are two unattached leaves having eleven leaflets each; but these are probably not the uppermost ones, for Bennett describes the leaves as having 5 to 9 leaflets.

5. **Zanthoxylum Bungei,** *Planch. in Ann. Sc. Nat.* 3ᵉ sér. xix. p. 82, *non Hance, Ann. Sc. Nat.* 5ᵉ sér. v. p. 209; *Hance in*

*Journ. Bot.* 1875, p. 131, et 1882, p. 3; *Franchet, Pl. David.* p. 66, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 205 (var. imperforatum).

Zanthoxylum simulans, *Hance in Ann. Sc. Nat.* 5[e] sér. v. p. 208.

Zanthoxylum Bungeanum, *Maxim. in Mél. Biol.* viii. pp. 2 et 372.

Zanthoxylum nitidum, *Bunge, Enum. Pl. Chin. Bor.* p. 13, *non DC.*

CHIHLI: near Peking (*Bunge*! *Bretschneider*!), Tientsin (*Daniell*!); SHANTUNG (*Guillon* ex *Franchet*); KIANGSU: Chinkiang (*Bullock*!); CHUSAN ARCHIPELAGO (*Cantor*! *Cunningham* in herb. Sloane, xciv. pp. 190, 191!); KIANGSI: Kiukiang (*Maries*!); FOKIEN: Amoy (*Hance*, 1480 in part!), without locality (*De Grijs*, hb. Hance, 10698!); HUPEH: Ichang (*Watters*!); SHENSI and KANSUH (*Piasezki* ex *Maximowicz MSS.*). Mus. Brit.; Herb. Kew.

6. **Zanthoxylum cuspidatum**, *Champ. in Hook. Kew Journ. Bot.* iii. p. 329; *Walp. Ann.* iv. p. 415; *Benth. Fl. Hongk.* p. 58.

FORMOSA: Tamsui (*Oldham*, 59! *Swinhoe*!); HONGKONG (*Champion*! *Wright*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

7. **Zanthoxylum dissitum**, *Hemsl.*, n. sp.

*Frutex* vel *arbor* novellis undique glaberrimis, ramulis ultimis floriferis crassiusculis inermibus (an semper?). *Folia* ampla, pinnata, alterna, ultra pedalia (2 tantum visa); foliolorum juga dissita; foliola 7, subopposita vel distincte alterna, breviter petiolulata, coriacea, integerrima, oblongo-lanceolata, 5–6 poll. longa, $1\frac{1}{4}$–2 poll. lata, acute acuminata, basi cuneata, interdum leviter obliqua, supra nitidissima, nuda, subtus opaca, pallidiora, glandulis paucis opacis notata, nuda vel costa aculeis paucis armata, venis primariis numerosis sat conspicuis; petiolus rhachisque teres, aculeis paucis recurvis armatus. *Flores* (♂ tantum visi) tetrameri, $2\frac{1}{2}$–3 lineas longi, pauci in cymas axillares vix pollicares dispositi; sepala parva, rotundata; petala elliptico-ovalia, apice rotundata; stamina petalis breviora, antheris magnis dorsifixis; pistilli rudimentum bene evolutum 2–3-lobatum.

HUPEH; Ichang Gorge (*Maries*!). Herb. Kew.

8. **Zanthoxylum nitidum**, *DC. Prodr.* i. p. 727; *Benth. Fl. Hongk.* p. 58; *Maxim. in Mél. Biol.* viii. p. 2.

Fagara piperita, *Lour. Fl. Cochinch.* p. 80, ex *DC.*

FORMOSA: Tamsui (*Oldham*, 60!); FOKIEN: Amoy (*Hance*, 1144!); KWANGTUNG: Dane's Island, Whampoa (*Macartney*!);

HONGKONG (*Hinds*! *Wright*! *Wilford*! *Lamont*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

9. **Zanthoxylum piperitum**, *DC. Prodr.* i. p. 725; *Maxim. in Mél. Biol.* viii. p. 3; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 205.

SHENSI OR KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*); SHANTUNG: Chefoo, cult. (*Fauvel* ex *Franchet*); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*!). Herb. Kew.

Japan.

10. **Zanthoxylum podocarpum**, *Hemsl.*, n. sp.

*Frutex* vel *arbor* fere omnino inermis, novellis glabris. *Folia* alterna, petiolata, pinnata, 4–6 poll. longa; foliola 5–7, opposita, brevissime petiolulata, contigua, tenuiuscula, conspicue pellucido-punctata, crenato-serrulata, leviter inæquilatera, ovato-lanceolata vel oblongo-elliptica, $1\frac{1}{2}$–2 poll. longa, sursum sensim longiora, acuminata vix acuta, basi cuneata, venis paucis subtus prominulis; petiolus rhachisque crassiusculus, nitidus, aculeis paucis minutis interdum dorso instructus. *Flores* ........ dense cymosi, cymis axillaribus subsessilibus 2–3 poll. latis, pedicellis brevibus. *Carpella* obliqua, distincte pseudostipitata, ut videtur subcarnosa, opaca, immerso-glandulosa, compressa, semine atro nitido.

KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

11. **Zanthoxylum schinifolium**, *Sieb. et Zucc. Fl., Jap. Fam. Nat.* p. 29; *Hance in Journ. Bot.* 1883, p. 296; *Maxim. in Mél. Biol.* viii. p. 3.

Zanthoxylum Mantschuricum, *Benn. in Ann. Nat. Hist.* ser. 3, x. (1862), p. 200.

SHINGKING: Talienwhan (*Daniell*! spec. typ. *Z. mantschurici*, in Mus. Brit.); SHANTUNG: Chefoo (*Forbes*!); KIANGSU (*Staunton*!); ANWHEI (*Heude* in hb. Forbes!); CHUSAN ARCHIPELAGO (*Cunningham* in herb. Sloane, xciv. p. 190!); COREA (*Perry*!). Mus. Brit.; Herb. Kew.

Japan.

12. **Zanthoxylum setosum**, *Hemsl.*, n. sp.

*Frutex* vel *arbor* novellis setosis, ramulis fructiferis simul aculeatis, aculeis rectis. *Folia* alterna, petiolata, pinnata, $2\frac{1}{2}$–5 poll. longa; foliola 5–7, opposita, subsessilia, tenuiuscula, obscurissime pellucido-punctata, minute crenata, æquilatera, circumscriptione variabilia (ovata, obovata, oblonga, elliptica vel fere orbicularia),

1–2 poll. longa, superiora sæpius majora, sæpius utrinque obtusa vel rotundata, interdum breviter acuminata, supra subtusque parce appresso-setosa, costa subtus aculeolis paucis instructa vel nuda; rhachis tenuiuscula, inter foliolis leviter curvata, setosa, simul aculeis paucis rectis vel obliquis (nec curvatis) instructa. *Flores* ........ cymosi, cymis axillaribus, subsessilibus, circiter 2 poll. longis, pedicellis brevibus. *Carpella* sessilia, opaca, immerso-glandulosa, semine nigro nitidissimo.

KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

13. **Zanthoxylum**, sp. (*Pluk. Iconogr.* t. cccxcii. fig. 1.)

CHUSAN ARCHIPELAGO (*Cunningham* in hb. Sloane, xciv. p. 190!); FORMOSA: Kelung (*Ford*!). Mus. Brit.; Herb. Kew

Possibly the same as the imperfectly described *Z. emarginellum*, Miq. (Ann. Mus. Bot. Lugd.-Bat. iii. p. 22), though the leaflets are much more numerous in the specimens we have seen.

[*Piper pinnatum*, Lour. Fl. Cochinch. p. 31, Bretschneider (Early Res. p. 141) surmises, from the Chinese name, may be a species of *Zanthoxylum*.]

1. **Toddalia aculeata**, *Pers. Syn. Pl.* i. p. 249; *DC. Prodr.* ii. p. 83; *Benth. Fl. Hongk.* p. 59; *Hook. f. Fl. Brit. Ind.* i. p. 497.

Toddalia floribunda, *Wall. Pl. As. Rar.* iii. p. 37.

Zanthoxylum nitidum, *Wall. Cat.* 1207, *e China, non DC.*

Paullinia asiatica, *Linn. Sp. Pl.* ed. i. p. 365; *Osbeck, Voy.*, Eng. ed. ii. p. 9.

KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wright*! *Lamont*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Western Himalaya to the Khasia mountains; Ceylon, Malay archipelago, and Philippine Islands.

1. **Phellodendron amurense**, *Rupr. in Bull. Acad. Pétersb.* xv. p. 526; *Maxim. Fl. Amur.* p. 72, t. 4; *Franchet, Pl. David.* p. 67.

CHIHLI: Jehol (*David* ex *Franchet*).

Amur; Mandshuria; Sachalin; Japan.

1. **Acronychia laurifolia**, *Blume, Bijdr.* p. 245; *Hook. f. Fl. Brit. Ind.* i. p. 498.

Cyminosma pedunculata, *DC.* et C. resinosa, *DC. Prodr.* i. p. 722; *Benth. Fl. Hongk.* p. 60; *Seem. Bot. Voy. 'Herald,'* p. 370.

Acronychia Cyminosma, *F. Muell. Fragm. Phytogr. Austr.* i. p. 27; *Hance in Journ. Linn. Soc.* xiii. p. 101.

Jambolifera pedunculata, *Linn.* et J. resinosa, *Lour. Fl. Cochinch.* pp. 230 et 231; *Bretschn. Early Res.* p. 141.

CHINA, without locality (*Millett*! *Seemann*!); FORMOSA: Kelung (*Ford*!); KWANGTUNG: Macao &c. (*Vachell*!), Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

Widely spread in India and Malaya.

1. **Glycosmis pentaphylla**, *Correa in Ann. Mus. Par.* vi. p. 384; *DC. Prodr.* i. p. 538; *Oliv. in Journ. Linn. Soc.* v., Suppl. ii. p. 37 (var. chinensis).

Glycosmis citrifolia, *Lindl. in Trans. Hort. Soc. Lond.* vi. p. 72; *Benth. Fl. Hongk.* p. 51.

Limonia parvifolia, *Sims in Bot. Mag.* t. 2416.

CHINA: without locality (*Macartney & Staunton*!); HONGKONG (*Champion*! *Wright*! *Wilford*! *Lamont*!); KWANGTUNG: Pakhoi (*Playfair*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia, and extending to Western Polynesia and North-eastern Australia.

1. **Triphasia Aurantiola**, *Lour. Fl. Cochinch.* p. 153; *Risso, Orang.* t. 108.

Triphasia trifoliata, *DC. Prodr.* i. p. 536; *Oliv. in Journ. Linn. Soc.* v., Suppl. ii. p. 26.

Limonia trifoliata, *Linn. in Mant. alt.* p. 237.

Loureiro records this as a native of China, but we have seen no Chinese specimens. It is now very widely spread in warm countries; but where it is really indigenous is uncertain.

1. **Limonia ? trichocarpa**, *Hance in Journ. Bot.* 1882, p. 258.

SZECHUEN: Chungking (*Parker* ex *Hance*).

1. **Murraya exotica**, *Linn. Mant. alt.* p. 563; *DC. Prodr.* i. p. 537; *Benth. Fl. Hongk.* p. 50; *Bot. Reg.* t. 434; *Bretschn. Early Res.* p. 142.

Chalcas paniculata et C. japonensis, *Lour. Fl. Cochinch.* pp. 270, 271.

CHINA, without locality (*Bladh*! *Macartney*! *Millett*!); FORMOSA (*Oldham*, 63! *Maries*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia and Polynesia; often cultivated.

1. **Clausena Wampi**, *Oliv. in Journ. Linn. Soc.* v. Suppl. ii. p. 34; *Benth. Fl. Hongk.* p. 50; *Hook. f. Fl. Brit. Ind.* i. p. 505.

Cookia Wampi, *Blanco, Fl. Filip.* ed. 1, p. 358.

Cookia punctata, *Sonnerat, Voy.* iii. p. 258; *DC. Prodr.* i. p. 537.

Quinaria lansium, *Lour. Fl. Cochinch.* p. 272.

HAINAN (*Swinhoe*!). Herb. Kew.

The Wampee is cultivated for its fruit in China, India, and Malaya; native country uncertain.

1. **Atalantia buxifolia**, *Oliv. in Journ. Linn. Soc.* v., Suppl. ii. p. 26; *Benth. Fl. Hongk.* p. 51; *Bretschn. Early Res.* p. 94.

Limonia bilocularis, *Roxb. Fl. Ind.* ii. p. 377.

Sclerostylis atalantoides, *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* p. 94, *non Wight Icones.*

Sclerostylis buxifolia, *Benth. in Hook. Kew Journ. Bot.* iii. p. 326; *Seem. Bot. Voy. 'Herald,'* p. 689, t. 81.

Atalantia monophylla, *Hook. et Arn. Bot. Beech. Voy.* p. 172, *non DC.*

Severinia buxifolia, *Tenore in Cat. Hort. Nap.* p. 96.

CHINA, without locality (*Millett*! *Hance*!); FORMOSA: west coast (*Wilford*!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Champion*! *Wright*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

*Buxoides aculeata*, Osbeck, Voy., Eng. ed. i. p. 394, Bretschneider suggests may be this.

2. **Atalantia Hindsii**, *Oliv. in Journ. Linn. Soc.* v., Suppl. ii. p. 26; *Benth. Fl. Hongk.* p. 51.

Atalantia monophylla, *Benth. in Hook. Lond. Journ. Bot.* i. p. 483, *non DC.*

Sclerostylis Hindsii, *Champ.*, et S. venosa, *Champ. in Hook. Kew Journ. Bot.* iii. pp. 327 et 328; *Seem. Bot. Voy. 'Herald,'* p. 369, t. 82.

Limonia monophylla, *Lour. Fl. Cochinch.* p. 271? vide *Bretschn. Early Res.* p. 142.

HONGKONG (*Hinds*! *Wright*! *Champion*! *Seemann*! *Lamont*!). Mus. Brit.; Herb. Kew.

1. **Citrus Aurantium**, *Linn. Sp. Pl.* ed. 1, p. 782; *DC. Prodr.* i. p. 539; *Lour. Fl. Cochinch.* p. 466; *Bretschn. Early Res.* p. 142.

Citrus aurantium sinense, *Gall. Citr.* p. 149.

Citrus sinensis, *Pers. Syn. Pl.* ii. p. 74.

Citrus buxifolia, *Poir. Encycl.* iv. p. 680.

Citrus vulgaris, *Risso in Ann. Mus. Par.* xx. p. 190.

Citrus fusca, *Lour. Fl. Cochinch.* p. 467 ?

The herbarium specimens of the various forms of *Citrus* from China appear to be all of cultivated origin; yet there is little doubt that some, if not all, of the species here enumerated are really native in some parts of that country.

2. **Citrus Decumana**, *Lour. Fl. Cochinch.* p. 467 (1790); *Willd. Sp. Pl.* iii. p. 1428 (1800); *DC. Prodr.* i. p. 539; *Hook. f. Fl. Brit. Ind.* i. p. 516; *Bretschn. Early Res.* pp. 10 et 95.

Citrus Aurantium, β. sinense, *Linn. Sp. Pl.* ed. 2, p. 1101.

3. **Citrus japonica**, *Thunb. Fl. Jap.* p. 292, et *Ic. Jap.* t. 15; *Sieb. et Zucc. Fl. Jap.* i. p. 35; *Fortune in Journ. Hort. Soc. Lond.* iii. p. 239, cum ic. xylogr.; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 83; *Bretschn. Early Res.* p. 5 et p. 94.

Citrus madurensis, *Lour.*, et C. margarita, *Lour. Fl. Cochinch.* p. 467.

Citrus microcarpa, *Bunge, Enum. Pl. Chin. Bor.* p. 10; *Bretschn. Early Res.* p. 142.

Citrus Aurantium, var. japonica, *Hook. f. in Bot. Mag.* t. 6128.

Citrus inermis, *Roxb. Fl. Ind.* iii p. 393.

This is the Kumquat.

4. **Citrus Medica**, *Linn. Sp. Pl.* ed. 1, p. 782; *DC. Prodr.* i. p. 539; *Lour. Fl. Cochinch.* p. 465; *Bretschn. Early Res.* pp. 94 et 142.

Citrus digitata *seu* chirocarpus, *Lour. l. c.*

5. **Citrus nobilis**, *Lour. Fl. Cochinch.* p. 466; *DC. Prodr.* i. p. 540; *Bot. Reg.* t. 311; *Bretschn. Early Res.* p. 142.

Citrus deliciosa, *Tenore, Sull. Arancio Mandarino*, pp. 11, cum tab.; *Walp. Rep.* ii. p. 804.

1. **Ægle sepiaria**, *DC. Prodr.* i. p. 538; *Kæmpf. Amœn. Bot.* p. 80, cum ic.

Pseudægle sepiaria, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 83; *Franchet, Pl. David.* p. 67.

Citrus trifoliata, *Linn. Sp. Pl.* ed. 2, p. 1101; *Bot. Mag.* t. 6513; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 205.

Citrus trifolia, *Thunb. Fl. Jap.* p. 294.

Citrus triptera, *Desf. Cat. Pl. Hort. Reg. Par.* ed. 3, p. 406; *Rev. Hort.* 1869, p. 15, et 1885, p. 516, cum ic. color.

We have seen only cultivated and hedgerow specimens of this plant. Herb. Kew.

## 32. SIMARUBEÆ.

1. **Ailantus glandulosa,** *Desf. in Act. Acad. Par.* 1786, p. 263. t. 8, ex *DC. Prodr.* ii. p. 89; *Baker et Moore in Journ. Linn. Soc.* xvii. p. 380; *Franchet, Pl. David.* p. 68, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 206; *Debeaux, Fl. Tients.* p. 15.

CHIHLI (*Bunge*! *Staunton*!); SHINGKING: Chienshan (*Ross*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); KIANGSU: common about Shanghai (*Forbes*!). Mus. Brit.; Herb. Kew.

2. **Ailantus malabarica,** *DC. Prodr.* ii. p. 89; *Hance in Journ. Bot.* 1878, p. 225; *Hook. f. Fl. Brit. Ind.* i. p. 518.

FOKIEN: Amoy (*Hance*, 1479!). Herb. Kew.

Western peninsula of India, Ceylon, and Cochinchina.

Specimens of an *Ailantus* from Cape d'Aguilar, Hongkong, collected by Ford, possibly represent a distinct species.

1. **Picrasma quassioides,** *Benn. Pl. Jav. Rar.* p. 198, in adnot.; *Benth. Fl. Hongk.* p. 61; *A. W. Benn. in Hook. f. Fl. Brit. Ind.* i. p. 520.

Picrasma ailanthoides, *Planch. in Hook. Lond. Journ. Bot.* v. p. 573; *Walp. Ann.* i. p. 167.

Rhus ailanthoides, *Bunge, Enum. Pl. Chin. Bor.* p. 15.

Picrasma japonica, *A. Gr. Bot. Jap.* p. 383.

CHIHLI: Zuiweyshan mountains (*Bunge*!)]; HONGKONG (*Wright*! *Hance*!); COREA: west coast (*Perry*!). Herb. Kew.

Himalayas and Japan.

1. **Brucea sumatrana,** *Roxb. Fl. Ind.* i. p. 467; *DC. Prodr.* ii. p. 88; *Benth. Fl. Hongk.* p. 60.

Gonus amarissimus, *Lour. Fl. Cochinch.* p. 586.

CHINA, without locality (*Macartney*! *Staunton*! *Millett*!); FOKIEN: Amoy (*Swinhoe*!); KWANGTUNG: Macao (*Tate*!), Pakhoi (*Playfair*!); HONGKONG (*Wright*! *Champion*! *Lamont*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Assam and Malaya to Australia and the Philippines.

1. **Harrisonia Bennettii,** *Hook. f.* ex *A. W. Benn. in Hook. f. Fl. Brit. Ind.* i. p. 519; *Hance in Journ. Bot.* 1869, p. 41.

Lasiolepis paucijuga et L. multijuga, *Benn. Pl. Jav. Rar.* p. 202, t. 42.

Lasiolepis Bennettii, *Planch. in Hook. Lond. Journ. Bot.* v. p. 570.

HAINAN (*Swinhoe*!). Herb. Kew.

Malay peninsula and archipelago, Philippines, and Africa?

## 33. BURSERACEÆ.

1. **Canarium album**, *Ræusch*, ex *DC. Prodr.* ii. p. 80; *Hance in Journ. Bot.* 1871, p. 39; *Engler in DC. Monogr. Phanerog.* iv. p. 122; *Bretschn. Early Res.* p. 95.

Pimela alba, *Lour. Fl. Cochinch.* p. 408.

Canarium sinense, *Rumph. Herb. Amb.* ii. p. 154, ex *DC.*

KWANGTUNG: Whampoa, cultivated (ex *Hance*).

Cochinchina.

2. **Canarium Pimela**, *Kon. in Konig & Sims' Ann. Bot.* i. p. 361, t. 7. fig. 1; *DC. Prodr.* ii. p. 80; *Hance in Journ. Bot.* 1871, p. 38; *Bretschn. Early Res.* p. 95; *Engler in DC. Monogr. Phanerog.* iv. p. 80.

Pimela nigra, *Lour. Fl. Cochinch.* p. 407.

CHINA, without locality (*Fortune*, 55!); KWANGTUNG: Whampoa (*Hance*, 5866!); HONGKONG (*Wright*!). Mus. Brit.; Herb. Kew.

Cochinchina.

This and the preceding bear the name of Chinese Olives.

## 34. MELIACEÆ.

1. **Turræa pubescens**, *Hellen. in Nov. Act. Holm.* v. (1788), ex *DC. Prodr.* i. p. 620; *C. DC. in DC. Monogr. Phanerog.* i. p. 446; *Hance in Journ. Bot.* 1878, p. 9.

HAINAN (*Swinhoe*!). Herb. Kew.

Cochinchina, Philippines, and Java.

1. **Melia Azedarach**, *Linn. Sp. Pl.* ed. 1, p. 384; *DC. Prodr.* i. p. 621; *Franchet, Pl. David.* p. 68.

Melia japonica, *G. Don, Gen. Syst.* i. p. 680; *Walp. Rep.* v. p. 373; *Maxim. Fl. As. Or. Fragm.* p. 7.

KIANGSU: Shanghai (*hb. Forbes*!); CHEKIANG: Ningpo (*Hancock*!); KIANGSI: Kiukiang (*David*, 838, ex *Franchet*); FORMOSA (*Oldham*, 67!); SHENSI (*Piasezki* ex *Maximowicz MSS.*); HAINAN (*Swinhoe*! *Hancock*!). Mus. Brit.; Herb. Kew.

India, and commonly cultivated and naturalized in other warm countries.

2. **Melia dubia**, *Cav. Diss.* vii. p. 364; *Hiern in Hook. f. Fl. Brit. Ind.* i. p. 545; *C. DC. in DC. Monogr. Phanerog.* i. p. 453.

Melia composita, *Willd. Sp. Pl.* ii. p. 559, *non DC.*

China, without locality (*Vachell!*); Kiangsu (*Poli* ex *Franchet MSS.*); Kwangtung: Pakhoi (*Playfair!*). Herb. Kew.

Tropical Asia, Africa, and Australia.

1. **Aglaia odorata,** *Lour. Fl. Cochinch.* p. 173; *DC. Prodr.* i. p. 537; *Hook. et Arn. Bot. Beech. Voy.* p. 174, t. 34; *C. DC. in DC. Monogr. Phanerog.* i. p. 602, cum β. microphyllina.

China, without locality (*Millett!*); Kwangtung: Canton, without collector's name! Herb. Kew.

Malay peninsula and archipelago.

1. **Amoora Rohituka,** *Wight et Arn. Prod. Fl. Ind.* i. p. 119; *Hiern in Hook. f. Fl. Brit. Ind.* i. p. 559; *Hance in Journ. Bot.* 1879, p. 10.

Hainan (*Bullock* ex *Hance*).

Widely spread in India, Malay peninsula and archipelago, and reaching the Philippines.

1. **Cedrela sinensis,** *A. Juss. in Mém. Mus. Par.* xix. p. 294; *Walp. Rep.* i. p. 436; *C. DC. in DC. Monogr. Phanerog.* i. p. 743; *Franchet, Pl. David.* p. 68.

Toona sinensis, *Rœm. Synop.* i. p. 138.

Ailantus flavescens, *Carr. Rev. Hort.* 1865, p. 366.

Chihli, near Peking (*Bunge! Bretschneider! David,* 2386!); Kansuh: beyond the great wall (*Piasezki* ex *Maximowicz*). Herb. Kew.

Japan?

## 35. CHAILLETIACEÆ.

1. **Chailletia hainanensis,** *Hance in Journ. Bot.* 1885, p. 322.

Hainan: Woshi (*B. C. Henry* ex *Hance*).

## 36. OLACINEÆ.

1. **Schœpfia chinensis,** *Gardn. et Champ. in Hook. Kew. Journ. Bot.* i. p. 308; *Benth. Fl. Hongk.* p. 52.

Schœpfiopsis chinensis, *Miers in Journ. Linn. Soc.* xvii. p. 77.

Hongkong (*Wright! Champion! Wilford! Lamont!*). Mus. Brit.; Herb. Kew.

2. **Schœpfia jasminodora,** *Sieb. et Zucc. in Abhandl. Münch. Akad.* iv. 8, p. 135; *Walp. Ann.* i. p. 960.

Schœpfiopsis jasminodora, *Miers in Journ. Linn. Soc.* xvii. p. 77.

Luchu Archipelago (*Wright!*). Herb. Kew.

Japan.

1. **Cansjera Rheedii,** *Gmel. Syst.* i. p. 280; *DC. Prodr.* xiv. p. 519; *Benth. Fl. Hongk.* p. 296.

Cansjera lanceolata, *Benth. in Hook. Lond. Journ. Bot.* i. p. 491.

HONGKONG (*Wright*! *Champion*! *Hinds*!). Herb. Kew.

Widely spread in India and in the Malay Archipelago.

1. **Iodes vitiginea,** *Hance in Journ. Bot.* 1874, p. 184.

Erythrostaphyle vitiginea, *Hance in Journ. Bot.* 1873, p. 266.

KWANGTUNG: West River (*Sampson*! *Hance*, 16858! *Ford*!). Herb. Kew.

## 37. ILICINEÆ.

1. **Ilex asprella,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 329; *Benth. Fl. Hongk.* p. 65; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 49.

Prinos asprellus, *Hook. et Arn. Bot. Beech. Voy.* p. 176, t. 36.

CHINA, without locality (*Beechey*! *Fortune*, 66 A!); FOKIEN: Amoy (*Swinhoe*!); FORMOSA: Tamsui (*Oldham*, 71!), Kelung (*Ford*!); KWANGTUNG: Whampoa (*Hance*, 16549!), Swatow (*Perry*!); HONGKONG (*Champion*! *Wilford*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

2. **Ilex chinensis,** *Sims, Bot. Mag.* t. 2043.

China.

The cymose, not subumbellate, inflorescence on peduncles exceeding the petioles is unknown to us among Chinese hollies, and there may be some error as to the origin of this species.

3. **Ilex cinerea,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 327; *Walp. Ann.* iv. p. 430; *Benth. Fl. Hongk.* p. 64; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 46.

HONGKONG (*Champion*!). Herb. Kew.

A specimen in the British Museum from Little Hongkong, collected by Lamont, may be a long-leaved variety of this, or possibly a distinct species.

4. **Ilex cornuta,** *Lindl. et Paxt. in Paxt. Fl. Gard.* i. p. 43, fig. 27, *in Gard. Chron.* 1850, p. 311, repetita; *Walp. Ann.* ii. p. 265; *Bot. Mag.* t. 5059; *Flore des Serres*, t. 895; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 44; *Hance in Journ. Bot.* 1878, p. 137.

KIANGSU: Shanghai (*Fortune*, 14!), Chinkiang (*Maries*!); CHEKIANG: Ningpo (*Home*! *Everard*!); KIANGSI (*Staunton*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

5. **Ilex ficoidea,** *Hemsl.*, n. sp.

Species facie *Ilicis graciliflorœ,* a qua differt foliis insigniter acuminatis, drupis brevissime pedicellatis. *Arbor*? omnino glaberrima, ramulis ultimis crassiusculis nigrescentibus. *Folia* longiuscule graciliterque petiolata, coriacea, supra nitida, subtus pallidiora, oblonga vel ovato-oblonga, absque petiolo $2\frac{1}{2}$–3 poll. longa, longe acuminata, obtusa, basi cuneata, obsolete remote crenulata, venis immersis inconspicuis; petiolus 6–8 lineas longus. *Pedunculi* axillares, brevissimi, pauciflori (flores desunt), pedicellis brevissimis. *Drupæ* rubræ (*Ford*), globosæ, sæpius 3–4 aggregatæ, pisiformes, stigmate sessili plano 4-lobato coronatæ; pyrenæ sæpius 4, crustaceæ, quartaglobosæ, fere læves.

HONGKONG: Happy Valley (*Ford*!). Herb. Kew.

6. **Ilex formosana,** *Maxim. in Mém. Acad. Sc. Pétersb.* 7^e^ série, xxix. (1881), p. 46.

FORMOSA (*Oldham*, 71/1!). Mus. Brit.; Herb. Kew.

Maximowicz mistook the number 71/1 for 74.

7. **Ilex Fortunei,** *Lindl. in Gard. Chron.* 1857, p. 868; *Maxim. in Mém. Acad. Sc. Pétersb.* 7^e^ série, xxix. (1881), p. 52.

Ilex Reevesiana, *Fortune in Gard. Chron.* 1851, p. 5?

CHEKIANG: Hwuychow (*Fortune*).

This may be the same as *I. integra,* Thunb.

8. **Ilex graciliflora,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 328; *Walp. Ann.* iv. p. 429; *Benth. Fl. Hongk.* p. 65; *Seem. Bot. Voy. 'Herald,'* p. 372; *Maxim. in Mém. Acad. Sc. Pétersb.* 7^e^ série, xxix. (1881), p. 43.

HONGKONG (*Champion*! *Wright*! *Wilford*! *Seemann*! *Lamont*!). Mus. Brit.; Herb. Kew.

9. **Ilex Hanceana,** *Maxim. in Mém. Acad. Sc. Pétersb.* 7^e^ série, xxix. (1881), p. 33.

Ilex buxifolia, *Hance in Journ. Bot.* 1876, p. 364.

HONGKONG: Wongneichung (*Lamont*!). Mus. Brit.

10. **Ilex integra,** *Thunb. Fl. Jap.* p. 77; *DC. Prodr.* ii. p. 16; *Maxim. in Mém. Acad. Sc. Pétersb.* 7^e^ série, xxix. (1881), p. 41.

CHINA, without locality (*Fortune*, 57!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*! *Oldham*, 144!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Throughout Japan.

11. **Ilex leptacantha,** *Lindl. ex Paxt. in Paxt. Fl. Gard.* iii. p. 72; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 44.

CHINA (*Fortune*).

12. **Ilex memecylifolia,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 328; *Walp. Ann.* iv. p. 430; *Benth. Fl. Hongk.* p. 65; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 37 (*cum* β. nummularia, *Champ.*).

HONGKONG (*Wright*! *Champion*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

13. **Ilex Mertensii,** *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 42, *et in Engl. Jahrb.* vi. p. 60.

LUCHU ARCHIPELAGO (*Doederlein* ex *Maximowicz*).

Boninsima.

14. **Ilex myriadenia,** *Hance in Journ. Bot.* 1883, p. 296.

KWANGTUNG: on a hill by the river Lienchau near Maposhui (*B. C. Henry* ex *Hance*, hb. 22120).

15. **Ilex Oldhami,** *Miq. in Ann. Mus. Bot. Ludg.-Bat.* iii. p. 105; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 38.

CHINA, without locality (*Fortune*, 58!); ANWHEI (*Heude, hb. Forbes*!). Mus. Brit.; Herb. Kew.

Japan.

16. **Ilex Pernyi,** *Franchet, Pl. David.* p. 69; *Hook. Ic. Pl.* t. 1539.

HUPEH: Ichang (*A. Henry*!); SHENSI: Tsinling mountains (*Perny* ex *Franchet*). Herb. Kew.

17. **Ilex oxyphylla,** *Miq. Journ. de Bot.* i. p. 124.

KWANGTUNG: near Suheang (*Krone* ex *Miquel*).

This name is not taken up by Maximowicz, and it was overlooked by us until after we had examined the Chinese species.

18. **Ilex pubescens,** *Hook. et Arn. Bot. Beech. Voy.* p. 176, t. 35; *Walp. Rep.* i. p. 540; *Benth. Fl. Hongk.* p. 65; *Seem. Bot. Voy. 'Herald,'* p. 372; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 40.

HONGKONG (*Champion*! *Wright*! *Wilford*! *Seemann*! *Hance*! *Lamont*!). Mus. Brit.; Herb. Kew.

This is recorded from Macao, and "other parts of South China," but there are no localized continental specimens in the London herbaria.

19. **Ilex rotunda,** *Thunb. Fl. Jap.* p. 77; *DC. Prodr.* ii. p. 16; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 106; *Hance in Journ. Bot.* 1883, p. 296; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 36.

Ilex lævigata, *Blume MSS. in distrib. Pl. Oldh.*

Ilex microcarpa, *Lindl. ex Paxt. in Paxt. Fl. Gard.* i. p. 43, fig. 28.

CHEKIANG: Tientung (*Fortune*, 56!); FOKIEN: Amoy (*Hance*, 1494!); KWANGTUNG: Lofaushan (*Ford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan.

20. **Ilex viridis,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 329; *Walp. Ann.* iv. p. 430; *Benth. Fl. Hongk.* p. 65; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, xxix. (1881), p. 46.

KWANGTUNG: Pakwan near Canton (*Sampson* ex *Maximowicz*); HONGKONG (*Champion*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

Hance's 13799 from the North river near Lupan, Kwangtung, which he doubtingly refers to *Ilex Aquifolium*, Linn., is probably not that species, as it has slender, puberulous, rusty young branchlets and conspicuous stipules.

## 38. CELASTRINEÆ.

1. **Euonymus Bungeanus,** *Maxim. Prim. Fl. Amur.* p. 470, et *in Mél. Biol.* xi. p. 188; *Hance in Journ. Linn. Soc.* xiii. p. 77; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 380; *Walp. Ann.* vii. p. 574; *Franchet, Pl. David.* p. 69, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 206; *Debeaux, Fl. Shangh.* p. 23.

Euonymus micranthus, *Bunge, Enum. Pl. Chin. Bor.* p. 14.

Euonymus Forbesii, *Hance in Journ. Bot.* 1880, p. 259.

CHIHLI (*Bunge*! *Staunton*! *Bretschneider*! *David*! and others); SHINGKING: Chienshan (*Ross*!); SHANTUNG (*Staunton*!): Chefoo (*Fauvel* ex *Franchet*); KIANGSU (*hb. Forbes*!); CHEKIANG: Ningpo (*Cooper*!); FOKIEN: Amoy (*Cunningham* in herb. Sloane, cclv. p. 103!). Mus. Brit.; Herb. Kew.

2. **Euonymus carnosus,** *Hemsl.*, n. sp.

*Frutex* sempervirens, glaber, ramulis teretibus. *Folia* persistentia, coriacea, petiolata, late ovalia, elliptica, suborbicularia vel interdum obovata, cum petiolo usque ad 4 poll. longa et 2 poll. lata, crebre crenulata, apice brevissime acuminata vel rotundata,

basi sæpius cuneata, subtus pallidiora, venis primariis utrinque sat conspicuis. *Cymæ* axillares, dichotomæ, sæpius 5-floræ, pedunculis 1½ poll. longis, pedicellisque crassiusculis. *Flores*, ut videtur, ampli (petala desunt); calyx carnosus, incrassatus, 4 lineas diametro; discus amplus; filamenta carnosa, persistentia; ovarium 4-alatum, 4-loculare; ovula in quoque loculo 4–5, sæpissime 4, per paria collateralia pendula. *Fructus* deest.

FORMOSA: Kelung (*Ford*!). Herb. Kew.

The broadly-expanded fleshy calyx and disk bearing the fleshy persistent filaments give this species a peculiar appearance.

3. **Euonymus chinensis**, *Lindl. in Trans. Hort. Soc.* vi. (circa 1825), p. 74, *nec Lour.*; *Walp. Rep.* i. p. 530; *Maxim. in Mél. Biol.* xi. p. 180.

Euonymus nitidus, *Benth. in Hook. Lond. Journ. Bot.* i. (1842), p. 483, et *Fl. Hongk.* p. 62; *Seem. Bot. Voy. 'Herald,'* p. 371, t. 83; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 610.

CHINA: without locality (*Staunton*!); HONGKONG (*Champion*! *Wilford*! *Wright*! *Lamont*! *Hinds*! *Forbes*!). Mus. Brit.; Herb. Kew.

Griffith's "Bengal" specimen was certainly cultivated, as it is labelled "H.B.C.," *i. e.* Hort. Bot. Calc. *Euonymus chinensis*, Lour. (Fl. Cochinch. p. 156), is described as having cordate 3-lobed leaves and clearly does not belong to this genus.

4. **Euonymus echinatus**, *Wall. in Roxb. Fl. Ind., ed. Carey*, ii. p. 409; *Hook. f. Fl. Brit. Ind.* i. p. 611.

CHINA: without locality and collector's name (*Herb. Kew.*); LUCHU (*Wright*!). Herb. Kew.

Himalayas, from Garwhal to Sikkim.

5. **Euonymus europæus**, *Linn. Sp. Pl.* ed. i. p. 197; *Maxim. in Mél. Biol.* xi. p. 190 (varietates).

KIANGSU: Shanghai (*Maingay*?). Herb. Kew.

As understood by Maximowicz this species extends from Europe to Japan, though he records no Chinese localities. Maingay's specimen is fragmentary.

6. **Euonymus gibber**, *Hance in Journ. Bot.* 1882, p. 77.

HONGKONG: cultivated (*Ford*!). Herb. Kew.

7. **Euonymus gracillimus**, *Hemsl.*, n. sp.

*Frutex* parvus, ut videtur procumbens, undique glaberrimus,

ramulis gracilibus viridibus quadrangulatis, internodiis quam folia brevioribus. *Folia* persistentia ?, breviter petiolata, tenuia, nitida, anguste lanceolata, $1\frac{1}{4}$–2 poll. longa, usque ad $\frac{1}{3}$ poll. lata, utrinque valde attenuata, sed vix acuta, minute calloso-serrata, venis fere obsoletis. *Pedunculi* filiformes, vix semipollicares, in axillis foliorum pauci fasciculati, 1–3-flori. *Flores* 5-meri, vix lineam diametro, petala sessilia, orbicularia, sinuata ; antheræ subsessiles ; ovarium 4-loculare, loculis 2-ovulatis, ovulis adscendentibus. *Fructus* non visus.

CHINA : without locality (*Reeves* !). Herb. Kew.

This species is readily distinguished by its extreme slenderness, narrow leaves, and minute flowers on filiform peduncles less than half an inch long.

8. **Euonymus hederaceus**, *Champ. in Hook. Kew Journ. Bot.* iii. p. 333 ; *Walp. Ann.* iv. p. 426 ; *Benth. Fl. Hongk.* p. 63 ; *Maxim. in Mél. Biol.* xi. p. 182.

HONGKONG (*Champion* ! *Wilford* ! *Urquhart* !). Herb. Kew.

9. **Euonymus japonicus**, *Thunb. Fl. Jap.* p. 100 ; *DC. Prodr.* ii. p. 4 ; *Maxim. in Mél. Biol.* xi. p. 178 ; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 206 ; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 86 (β. radicans).

SHANTUNG : Chefoo (*Fauvel* ex *Franchet*) ; KIANGSU : Shanghai (*Maingay* !), Kiangnan (*Staunton* !) ; KIANGSI : Kiukiang (*Shearer* !) ; LUCHU ARCHIPELAGO (*Wright* ! *Beechey* !). Mus. Brit. ; Herb. Kew.

Japan, Bonin Islands.

10. **Euonymus laxiflorus**, *Champ. in Hook. Kew Journ. Bot.* iii. p. 333 ; *Benth. Fl. Hongk.* p. 63 ; *Maxim. in Mél. Biol.* xi. p. 183.

KWANGTUNG : Lofaushan (*Ford* !) ; HONGKONG (*Champion* ! *Wright* ! *Wilford* ! *Ford* ! *Lamont* !). Mus. Brit. ; Herb. Kew.

Ford's specimen from the mainland has remarkably acuminate, distinctly serrate leaves.

11. **Euonymus longifolius**, *Champ. in Hook. Kew Journ. Bot.* iii. p. 332 ; *Walp. Ann.* ix. p. 426 ; *Benth. Fl. Hongk.* p. 62 ; *Maxim. in Mél. Biol.* xi. p. 183.

HONGKONG (*Wilford* ! *Champion* ! *Wright* !). Herb. Kew.

12. **Euonymus nanus**, *Bieberst. Fl. Taur. Cauc.* iii. p. 160 ; *Ledeb. Fl. Ross.* i. p. 499 ; *Maxim. in Mél. Biol.* xi. p. 195.

KANSUH: at 7500 feet (*Przewalski* ex *Maximowicz*).
Caucasus, Bessarabia, Turkestan and Mongolia.

13. **Euonymus oxyphyllus,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 86; *Maxim. in Mél. Biol.* xi. p. 187.

Euonymus latifolius, *A. Gr. Bot. Jap.* p. 384.

Euonymus laxiflorus, *Blume, Distrib. Pl. Jap.* non *Champ.*

COREA: Port Chusan (*Wilford*!). Herb. Kew.

Japan.

14. **Euonymus Przewalskii,** *Maxim. in Mél. Biol.* xi. p. 194.

KANSUH: at an altitude of 10,000 feet (*Przewalski* ex *Maximowicz*).

15. **Euonymus sachalinensis,** *Maxim. in Mél. Biol.* xi. p. 185.

Euonymus latifolia, var. sachalinensis, *F. Schmidt, Reisen in Amurl. und Sachal.* p. 121.

KANSUH: in alpine regions along the Tetung (*Przewalski* ex *Maximowicz*); COREA (*Perry*? *Carles*?). Herb. Kew.

Mandshuria and Sachalin.

16. **Euonymus schensianus,** *Maxim. in Mél. Biol.* xi. p. 183.

SHENSI: near Hanchungfoo (*Piasezki* ex *Maximowicz*).

17. **Euonymus Tashiroi,** *Maxim. Mél. Biol.* xii. p. 430.

LUCHU ARCHIPELAGO (*Tashiro* ex *Maximowicz*).

18. **Euonymus Thunbergianus,** *Blume, Bijdr.* p. 1147; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 380; *Hance in Journ. Bot.* 1875, p. 131; *Franchet, Pl. David.* p. 70.

Euonymus alatus, *Regel, Fl. Ussur.* p. 40, t. 7; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 86; *Maxim. in Mél. Biol.* xi. p. 196.

Euonymus subtriflorus, *Blume, loc. cit.*

Celastrus alatus *et* C. striatus, *Thunb. Fl. Jap.* p. 98.

Melanocarya alata, *Turcz. in Bull. Mosc.* 1858, i. p. 453.

CHIHLI: Peking mountains (*Bretschneider*!), Jehol (*David*, 1772, 1727, ex *Franchet*); SHINGKING: Hingjing, Fungshan (*Ross*!); SHANTUNG: Chefoo (*hb. Forbes*!); KIANGSU: Chinkiang (*Stronach*!); CHEKIANG (*Staunton*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and Patung (*A. Henry*!). Mus. Brit.; Herb. Kew.

Amur, Japan.

19. **Euonymus verrucosus,** *Scop.*, var. **tchefouensis,** *Debeaux, Fl. Tchef.* p. 38.

SHANTUNG: Chefoo (ex *Debeaux*).

We have seen nothing from China agreeing with this species, which ranges from Eastern Europe to the Amur.

1. **Celastrus angulatus,** *Maxim. in Mél. Biol.* xi. p. 199.

KANSUH: valley of Hoangho, near Lanchaw (*Piasezki* ex *Maximowicz*).

2. **Celastrus articulatus,** *Thunb. Fl. Jap.* p. 97 (*loc. cit.* p. xlii, orbiculata); *DC. Prodr.* ii. p. 7; *Bunge, Enum. Pl. Chin. Bor.* p. 14; *Maxim. in Mél. Biol.* xi. p. 200 (*cum var. β.* punctatus); *Franchet, Pl. David.* p. 70, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 206.

Celastrus Tatarinowii, *Rupr. in Bull. Phys. Math.* xv. p. 357, fide *Maxim.*

Celastrus, n. sp., *Maxim. Ind. Pl. Pekin. in Prim. Fl. Amur.* p. 470.

Celastrus punctatus, *Thunb. Fl. Jap.* p. 97.

CHIHLI: apparently common (*Bunge*! *Tatarinow*! *Bretschneider*! *David*! and others); SHANTUNG: Chefoo (*hb. Forbes*!); KIANGSU: Kiangnan (*Staunton*!); KIANGSI: Kiukiang (*Shearer* ?); HUPEH: Ichang (*A. Henry*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*); KWANGTUNG: Amoy (*Hance*, 1442, *punctatus*!); COREA; Port Chusan (*Wilford*!), without locality (*Perry*!); COREAN ARCHIPELAGO (*Wilford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.: Herb. Kew.

Japan; Sachalin.

This species varies very much in foliage in different parts of its wide area; but the Kiukiang specimen may be a different species. It has remarkably obovate-cuneate leaves and larger flowers, with petals about four lines long and broad filaments.

3. **Celastrus cantonensis,** *Hance in Journ. Bot.* 1885, p. 323.

KWANGTUNG: North river (*Hance* 22191).

4. **Celastrus Championi,** *Benth. in Hook. Kew Journ. Bot.* iii. p. 334, et *Fl. Hongk.* p. 64; *Maxim. in Mél. Biol.* xi. p. 198.

Catha Benthami, *Gardn. et Champ. in Hook. Kew Journ. Bot.* i. p. 310.

HONGKONG (*Champion*! *Wilford*! *Urquhart*! *Lamont*!). Mus. Brit.; Herb. Kew.

Himalayas.

5. **Celastrus crispulus**, *Regel in Ind. Sem. Hort. Petrop.* 1861, p. 51; *Walp. Ann.* vii. p. 578; *Maxim. in Mél. Biol.* xi. p. 202.

CHINA: cultivated in the Petersburg botanic garden.

6. **Celastrus flagellaris**, *Rupr. in Bull. Phys.* xv. p. 357, et *Decas Pl. Amur.* t. 4; *Maxim. in Mél. Biol.* xi. p. 202; *Franchet, Pl. David.* p. 71.

Celastrus ciliidens, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 85.

CHIHLI: Jehol (*David* ex *Franchet*).

Mandshuria; Japan.

7. **Celastrus Hindsii**, *Benth. in Hook. Kew Journ. Bot.* iii. p. 334; *Maxim. in Mél. Biol.* xi. p. 199.

Catha monosperma, *Benth. in Hook. Lond. Journ. Bot.* i. p. 483.

Celastrus monospermus, *Benth. Fl. Hongk.* p. 63, *non Roxb.*

KWANGTUNG: Lofaushan (*Ford*!), Macao (*Hance*!); HONGKONG (*Hinds*! *Champion*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

8. **Celastrus diversifolius**, *Hemsl.*

Gymnosporia diversifolia, *Maxim. in Mél. Biol.* xi. p. 204.

Celastrus Wallichianus, *Hance in Journ. Bot.* 1878, p. 226? *non Wight et Arn.*

FOKIEN: Amoy (*Hance*, 1413!); HAINAN (*Bullock et Hance*); LUCHU ARCHIPELAGO (*Wright*!). Herb. Kew.

It is a little doubtful whether the Luchu plant be the same as the other. The principal difference is that the former has naked axillary spines, while the latter, so far as the specimens go, has the short lateral flowering branches terminating in a spine. Certainly the Amoy plant is not the *Celastrus Wallichianus*, Wight et Arn.

9. **Celastrus (Eucelastrus) latifolius**, *Hemsl.*, n. sp.

*Frutex* parvus (*Henry*), omnino glaberrimus, ramulis teretibus brunneis crebre lenticellatis; gemmæ magnæ. *Folia* longe petiolata, papyracea, late ovalia vel fere orbicularia, absque petiolo usque ad 6 poll. longa et 5 poll. lata, abrupte obtuseque acuminata, remotiuscule serrulata, venis primariis lateralibus utrinque sæpius 7 subtus elevatis; petiolus 5–12 lineas longus. *Flores* parvi, pentameri, monoici vel dioici, in paniculas angustas terminales dispositi, paniculis florum ♀ minoribus; calycis lobi ovato-oblongi, subacuti, margine nuda; petala (florum ♀ non visa) angusta, minute fimbriata; stamina florum ♂ petalis longiora,

filamentis filiformibus; discus parvus, lobatus; ovarium liberum, 3-loculare, loculis 2-ovulatis; ovula erecta; stylus brevis, stigmate maximo obscure trilobato. *Capsula* spheroidea, obscure trigona, circiter 6 poll. diametro, valvis stylo indurato cornutis; semina tota arillo rubro carnoso involuta, ellipsoidea, brunnea, nitida, minutissime punctata, simul obscure striolata.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

This is very much like *C. paniculatus*, but the leaves are larger, the flowers smaller, with narrower not ciliolate calyx-lobes, and the stamens of the male flowers exceed the petals.

Dr. Henry states that the leaves and root of this shrub are dried in the sun and pounded to a powder, which is said to be efficacious in killing insects that infest turnips, &c.

10. **Celastrus (Gymnosporia) variabilis**, *Hemsl.*, n. sp.

*Frutex* nanus, interdum prostratus (*Henry*), spinosissimus, paucispinosus vel omnino inermis, undique glaber, ramis floriferis teretibus, brevibus vel 2–3 ped. longis, simul inermis, primum glaucis vel pulverulentis. *Folia* breviter petiolata, papyracea, oblonga vel oblongo-lanceolata, 2–3½ poll. longa, usque ad 1 poll. lata, utrinque acuta vel cuneata, minute serrata, venis primariis utrinque circiter 10 sat conspicuis, ultimis reticulatis. *Flores* hermaphroditi, pentameri, 3–3½ lineas diametro, in cymas parvas (circiter pollicares) graciles dichotomas axillares dispositi; calycis lobi parvi, crassi, rotundati, minute fimbriati; petala lata, recurva, apice rotundata, obsolete fimbriata; stamina petalis breviora, filamentis teretibus; discus carnosus, ovarium cingens; ovarium 3-loculare, loculis biovulatis; ovula erecta; stylus brevissimus, 3-lobatus. *Capsula* trigona, spheroidea, nuda, 3–4 lineas diametro; semina matura desunt.

HUPEH: Ichang (*Maries*! *A. Henry*!). Herb. Kew.

Allied to *Celastrus Royleanus*, Wall., from which it differs in the texture and shape of its leaves and the shape of the fruit.

1. **Gymnosporia?**

HUPEH: Ichang (*Maries*!). Herb. Kew.

1. **Elæodendron? Fortunei**, *Turcz. in Bull. Mosc.* 1863, i. p. 602; *Walp. Ann.* vii. p. 582; *Maxim. in Mél. Biol.* xi. p. 205.

CHINA: without locality (*Fortune*, 46!). Mus. Brit.; Herb. Kew.

As Maximowicz observes, this is most likely *Euonymus*, but the fruit is unknown.

2. **Elæodendron glaucum,** *Pers. Syn. Pl.* i. p. 241; *Hook. et Arn. Bot. Beech. Voy.* p. 176.

This common Indian and Malayan species is recorded from China by Hooker and Arnott without any locality.

1. **Tripterygium Wilfordii,** *Hook. f. in Benth. et Hook. f. Gen. Plant.* i. p. 368; *Regel, Gartenfl.* 1869, p. 105, t. 612; *Maxim. in Mél. Biol.* xi. p. 206.

Tripterygium Bullockii, *Hance in Journ. Bot.* 1880, p. 259.

FORMOSA: on banks of the river Sanar (*Wilford*!), Tamsui (*Oldham*, 81/1!); HUNAN: on low hills along the river Siang (*Bullock* ex *Hance*); COREA: Soul mountains (*Carles*!). Mus. Brit.; Herb. Kew.

From the characters given by Hance, which we find in the original, there is no doubt that his is the same species.

1. **Hippocratea obtusifolia,** *Roxb. Fl. Ind.* i. p. 170; *DC. Prodr.* i. p. 569; *Benth. Fl. Hongk.* p. 62.

HONGKONG (*Champion*! *Ford*!). Herb. Kew.

Widely dispersed in Tropical Asia, Africa, and Australia.

[*Salacia*? *chinensis,* Linn. f. Mant. p. 293, is an obscure plant, and without dissecting one of the three flower-buds one cannot say whether it belongs to the Order; but it certainly is not the same as *Salacia cochinchinensis,* Lour. (*vide* DC. Prodr. i. p. 571), the type of which is in the British Museum, for the latter has strictly opposite leaves. The note in the Banksian herbarium referred to by De Candolle is in the handwriting of Salisbury, and runs thus: "The specimen in Linné's herbarium is so bad that it is impossible to be certain if this (*i. e.* Loureiro's plant) is the same species, but I see nothing against it."]

## 39. RHAMNACEÆ.

1. **Ventilago leiocarpa,** *Benth. in Journ. Linn. Soc.* v. p. 77; *Benth. Fl. Hongk.* p. 67; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 631, *pro parte.*

Ventilago maderaspatana, *Benth. in Hook. Kew Journ. Bot.* iv. p. 42, *non Gærtn.*

HONGKONG (*Champion*! *Wright*! *Urquhart*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

As limited by Bentham, this species also inhabits Malacca and Western Tropical Africa, and it is still further extended by Lawson; but a thorough revision of all the material would

probably lead to the separation of the Hongkong plant as a distinct species.

1. **Paliurus australis**, *Gærtn. Fruct.* i. p. 203, t. 43. fig. 5; *Franchet, Pl. David.* p. 71.

Paliurus aculeatus, *Lam. Illustr.* t. 210; *DC. Prodr.* ii. p. 22; *Nouv. Duham.* t. 17.

SHENSI (*David* ex *Franchet*).

South of Europe to Persia.

2. **Paliurus ramosissimus**, *Poir. in Lam. Encycl., Suppl.* iv. p. 262 (1816).

Paliurus Aubletia, *Schultz in Rœm. et Schult. Syst. Veg.* v. p. 343 (1819); *DC. Prodr.* ii. p. 22; *Benth. Fl. Hongk.* p. 66 (errore Aubletii); *Franchet, Pl. David.* p. 71; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, x. (reprint, p. 2).

Aubletia ramosissima, *Lour. Fl. Cochinch.* p. 283.

KIANGSI: Kiukiang (*David*, 736, ex *Franchet*); FORMOSA: north-east part (*Wilford*, 514!), Tamsui (*Oldham*, 68!); KWANGTUNG (*Staunton*!), Pakhoi (*Playfair*!). Mus. Brit.; Herb. Kew.

Japan.

1. **Zizyphus Jujuba**, *Lam. Encycl.* iii. p. 348; *DC. Prodr.* ii. p. 21; *Hance in Journ. Bot.* 1879, p. 10.

Rhamnus jujuba, *Linn. Sp. Pl.* ed. i. p. 194; *Lour. Fl. Cochinch.* p. 157.

KWANGTUNG: near Tienpak (ex *Hance*).

Tropical Asia, Africa, and Australia.

2. **Zizyphus Lotus**, *Lam. Encycl.* iii. p. 318; *DC. Prodr.* ii. p. 19; *Maxim. in Piasezki's Travels, Mosc.* ed. ii. p. 592.

SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*).

South Spain and North Africa to Turkey and Arabia.

3. **Zizyphus vulgaris**, *Lam. Encycl.* iii. p. 316; *DC. Prodr.* ii. p. 19; *Bunge, Enum. Pl. Chin. Bor.* p. 14 (*varietates*); *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, x. (reprint, p. 3); *Hance in Journ. Bot.* 1879, p. 10; *Baker & S. Moore, in Journ. Linn. Soc.* xvii. p. 380; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 207, et *Pl. David.* p. 71.

Zizyphus sinensis, *Lam. Encycl.* iii. p. 316.

Zizyphus nitida, *Roxb. Fl. Ind.*, Carey ed. i. p. 609.

Rhamnus Zizyphus, *Linn. Sp. Pl.* ed. i. p. 194.

Zizyphus soporifera, *Rœm. et Schult. Syst. Veg.* v. p. 340; *DC. Prodr.* ii. p. 22?; *Bretschn. Early Res.* p. 143.

Rhamnus soporifer, *Lour. Fl. Cochinch.* p. 158?

CHIHLI, SHINGKING, and SHANTUNG, common (*Home*! *Daniell*! *Bunge*! *Bretschneider*! *Staunton*! *Ross*! *Maingay*! and others); KIANGSU: Shanghai (*Maingay*!); COREA (*Perry*!); HUPEH (*A. Henry*!). Mus. Brit.; Herb. Kew.

South-eastern Europe to Afghanistan; Japan.

Maingay's specimens from Shanghai have an oblong fruit, and otherwise differ from the ordinary form of *Z. vulgaris*; yet it is probably a variety, as there are intermediate states.

1. **Microrhamnus franguloides**, *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, x. (reprint, p. 4), et *in Mél. Biol.* xii. p. 431.

Rhamnella japonica, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 30.

Berchemia congesta, *S. Moore in Journ. Bot.* 1875, p. 226.

KIANGSU: Shanghai (*Maingay*, 698, 707!); KIANGSI: Kiukiang (*Shearer*! *Forbes*!). Mus. Brit.; Herb. Kew.

Japan.

Flowering specimens of this very strongly resemble *Rhamnus crenatus*.

1. **Berchemia lineata**, *DC. Prodr.* ii. p. 23; *Hook. et Arn. Bot. Beech. Voy.* p. 177, t. 37; *Benth. Fl. Hongk.* p. 67; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, x. (reprint, p. 6); *Hance in Journ. Linn. Soc.* xiii. p. 115; *Hook. f. Fl. Brit. Ind.* i. p. 638.

Rhamnus lineatus, *Linn. Amœn. Acad.* iv. p. 308; *Osb. Voy.*, Eng. ed. i. p. 353, t. 7.

CHINA: without locality (*Macartney*! *Millet*! *Meyen*! *Potts*! *Fortune*!); FORMOSA: Tamsui (*Oldham* 69!); HUPEH (*A. Henry*!); FOKIEN: Foochow (*Maries*!), Amoy (*Hance*, 1463!); KWANGTUNG: Whampoa (*Lamont*!), Lofaushan (*Ford*!); HONGKONG (*Wright*!), Pakhoi (*Playfair*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Himalaya, from the Indus to Sikkim.

Hooker and Arnott, *loc. cit.*, refer *Berchemia Loureiriana*, DC. (*Rhamnus lineata*, Lour. Fl. Cochinch. p. 159), and *B. Poiretiana*, DC. (Prodr. ii. p. 23), to this species; but the former is described by Loureiro as being prickly.

2. **Berchemia racemosa**, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 39; *Benth. Fl. Hongk.* p. 67; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, x. (reprint, p. 5).

Berchemia lineata, *Benth. in Hook. Kew Journ. Bot.* iv. p. 42, *et Seem. Bot. Voy. 'Herald,'* p. 372, *non DC.*

CHUSAN ARCHIPELAGO (*Cunningham* in herb. Sloane, cclxix.

p. 16 !); FORMOSA: Tamsui (*Oldham* !); HUPEH: Ichang (*A. Henry* !); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*); FOKIEN: Amoy (*Swinhoe* !); HONGKONG (*Champion* ! *Seemann* ! *Wright* ! *Wilford* ! *Lamont* !). Mus. Brit.; Herb. Kew.

Japan.

3. **Berchemia ? sessiliflora**, *Benth. Fl. Hongk.* p. 68; *Walp. Ann.* vii. p. 588.

HONGKONG (*Wright* ex *Bentham*).

1. **Rhamnus argutus**, *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, x. (reprint, p. 6); *Hance in Journ. Bot.* 1875, p. 131; *Franchet, Pl. David.* p. 72.

CHIHLI: Jehol (*David*, 1820 !), Pohuashan (*Bretschneider* !), Peking mountains (*Kirilow* ! *Bretschneider* !). Mus. Brit.; Herb. Kew.

2. **Rhamnus crenatus**, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 38; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, x. (reprint, p. 18); *Franchet, Pl. David.* p. 73.

Frangula crenata, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 32.

Rhamnus oreigenes, *Hance in Journ. Bot.* 1869, p. 116, et 1870, p. 312.

KIANGSI: Kiukiang (*Shearer* !); HUPEH: Ichang and Patung (*A. Henry* !); KWANGTUNG: various localities (*Sampson* ! *Ford* !). Mus. Brit.; Herb. Kew.

Japan.

Dr. A. Henry's copious specimens prove that the Chinese plant is specifically inseparable from the Japanese.

3. **Rhamnus davuricus**, *Pall. Fl. Ross.* ii. p. 24, t. 61; *Ledeb. Fl. Ross.* i. p. 50.

Rhamnus catharticus, *Linn.*, β. intermedius et γ. davuricus, *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, x. (reprint, p. 8); *Franchet, Pl. David.* p. 72.

Rhamnus utilis, *Decne. in Comptes Rendus*, xl. p. 1140, et *in Rondot, Vert de Chine*, p. 141, t. 1.

Rhamnus sinensis, *Seringe*, ex *Rondot, op. cit.* p. 53.

CHIHLI: Peking (*Bretschneider* !), Jehol (*David* 1841 !); CHEKIANG: Hangchow, cult. (*Fortune* !); HUPEH (*A. Henry* !)

Eastern Siberia, Mandshuria. Mus. Brit.; Herb. Kew.

Authentically named *R. davuricus*, collected by Turczaninow and others, is quite like *R. utilis*, Decne.; but it is perhaps better to retain *davuricus* as a species than to unite it with *R. catharticus*, Linn.

Under the name *R. dahuricus*, Lawson (in Hook. f. Fl. Brit. Ind. i. p. 639) unites *R. globosus*, Bunge, *R. virgatus*, Roxb., and several other forms, which certainly differ from each other as much, or even more, than some of the species retained. On the other hand, it is difficult to define satisfactorily the limits of the eastern Asiatic species of *Rhamnus*. See note under *Rhamnus tinctorius*.

4. **Rhamnus parvifolius**, *Bunge, Enum. Pl. Chin. Bor.* p. 14; *Franchet, Pl. David.* p. 73.

Rhamnus virgatus, *Maxim. in Mém. Acad. Sc. Pétersb.* 7ᵉ série, x. (reprint, p. 13), excl. syn. pro parte, *non Roxb., nec Benth.*

Rhamnus crenatus, *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 380, *non Sieb. et Zucc.*

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Skatchkoff*!), Jehol (*David*, 1764); SHINGKING: Chienshan, Changdien, &c. (*Ross*!). Herb. Kew.

Soongaria.

The Indian and the Hongkong plants are different from this northern species, which is more nearly related to *R. globosus*, Bunge, and *R. argutus*, Maxim.

5. **Rhamnus rugulosus**, *Hemsl.*, n. sp.

*Arbor* vel *frutex*, ramulis primum pubescentibus demum cortice brunneo-cinerea, lateralibus brevibus sæpe in spinas abeuntibus. *Folia* sparsa vel conferta, petiolata, papyracea vel subcoriacea, ovata, ovalia, interdum fere rotundata vel obovata, absque petiolo usque ad 2¼ poll. longa et 1½ poll. lata, plus minus præcipue sursum serrato-dentata, sæpius obtuse acuminata, basi rotundata vel interdum cuneata, supra rugulosa, glabrescentia, venis costaque impressis, subtus albida, pubescentia, venis primariis lateralibus utrinque 5–6 elevatis; petiolus puberulus, 3–4 lineas longus; stipulæ subulatæ, circiter 2 lineas longæ, deciduæ. *Flores* ignoti. *Drupæ* sæpius 3-pyrenæ, paucæ in axillis foliorum fasciculatæ, breviter pedunculatæ, trilobæ; semina fere quartasphærica, lævia, nitida, sulco dorsali anguste hiante cartilagineo marginata.

HUPEH (*A. Henry*!). Herb. Kew.

6. **Rhamnus tinctorius**, *Waldst. et Kit. Descr. et Ic. Pl. Rar. Hung.* iii. p. 283, t. 255; *Boiss. Fl. Or.* ii. p. 18.

Rhamnus globosus, *Bunge, Enum. Pl. Chin. Bor.* p. 14.

Rhamnus infectorius, var. pubescens, *Griseb. Spicil. Fl. Rumel.* i. p. 150.

Rhamnus chlorophorus, *Decne. in Comptes Rendus*, xl. p. 1140, et *in Rondot, Vert de Chine*, p. 141, t. 2.

CHIHLI: Peking (*Bunge*! *Bretschneider*!); KIANGSU: Shanghai (*Perry*!); CHEKIANG (*Fortune*, 37!); KIANGSI: Kiukiang (*Shearer*!). Mus. Brit.; Herb. Kew.

South-eastern Europe and Asia Minor.

This and *R. davuricus* yield the famous Green Indigo, the Lo-Kao of China. Almost exact counterparts of Fortune's specimens, which are typical *chlorophorus*, and Bunge's authentic *R. globosus*, are found among the European specimens of *R. tinctorius*. It is distinguishable from *R. parvifolius*, as here limited, by the leaves being puberulous, even in the fruiting stage, by the long acuminate calyx-lobes, &c.

7. **Rhamnus virgatus**, *Benth. Fl. Hongk.* p. 68, *vix Roxb.*

KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Wright*! *Champion*!). Herb. Kew.

It has not been thought advisable to give this a new name, because it may yet prove to be specifically the same as one of the forms included under the present name; but to determine this point satisfactorily would involve the examination of the flowers of a large number of specimens.

8. **Rhamnus**, sp.

SZECHUEN: about ten miles north of Kweiyang, at 6500 feet (*Mesny*!). Herb. Kew.

"Used, with other ingredients, to make a green dye for calicos; its own liquor being blue like indigo. Neither flowers nor fruits seen."

This is very different from *R. tinctorius* and *R. davuricus*, also employed for dyeing, and it is apparently an evergreen shrub.

9. **Rhamnus**, sp.

KIANGSI: Kiukiang (*Maries*!); LUCHU ARCHIPELAGO (*Wright*!). Herb. Kew.

There is a little uncertainty about these two gatherings being the same species. The former bears male flowers and the other fruit, and has been named *R. crenatus*, Sieb. et Zucc., from which both differ in having much fewer primary lateral veins in the leaves, and in the fascicles of flowers being sessile instead of pedunculate. Perhaps a variety of *R. davuricus*, Pall.

1. **Hovenia dulcis**, *Thunb. Fl. Jap.* p. 101; *DC. Prodr.* ii. p. 40; *Hanb. Science Papers*, p. 238; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 640; *Maxim. in Mém. Acad. St. Pétersb.* 7e série, x. (reprint, p. 20).

Hovenia acerba, *Lindl. Bot. Reg.* t. 501, ex nota edit. ad calcem vol. vii.

CHIHLI: Peking mountains (*Bretschneider* !); FOKIEN: Amoy (*Fortune*, A 28 !); KWANGTUNG: Canton (*Reeves* !). Mus. Brit.; Herb. Kew.

North India; Japan.

Fleshy peduncle edible; used to diminish the effects of wine.

1. **Sageretia hamosa**, *Brongn. in Ann. Sc. Nat.* 1e série, x. p. 360; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 641.

FORMOSA (*Oldham*, 82 !). Herb. Kew.

Nepal and Western Peninsula of India.

2. **Sageretia rugosa**, *Hance in Journ. Bot.* 1878, p. 9.

KWANGTUNG: North and Lienchau rivers (*Lamont & Nevin* ex *Hance*).

3. **Sageretia theezans**, *Brongn. in Ann. Sc. Nat.* 1e série, x. p. 360; *Benth. Fl. Hongk.* p. 68; *Maxim. in Mém. Acad. Sc. Pétersb.* 7e série, x. (reprint, p. 20); *Hance in Journ. Linn. Soc.* xiii. p. 115.

CHINA: without locality (*Cunningham* in herb. Sloane, xciv. p. 216 !); KIANGSU: Fengwangshan (*hb. Forbes* !); CHEKIANG: Ningpo (*Savatier* ex *Franchet MSS.*); KWANGTUNG: Macao (*Millett* !), Whampoa (*Hance* !), Pakhoi (*Playfair* !), without locality (*Staunton* !); FORMOSA (*Swinhoe* !); HONGKONG (*Champion* ! *Wilford* ! *Lamont* !); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 166/1 !). Mus. Brit.; Herb. Kew.

Widely spread in India westward to Beluchistan.

## 40. AMPELIDEÆ.

1. **Vitis cantoniensis**, *Seem. Bot. Voy. 'Herald,'* p. 370; *Benth. Fl. Hongk.* p. 54; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 663.

Cissus cantoniensis, *Hook. et Arn. Bot. Beech. Voy.* p. 175; *Walp. Rep.* i. p. 439.

Cissus diversifolia, *Walp. Pl. Meyen.* p. 314, et *Rep.* v. p. 377.

Hedera hypoglauca, *Hance in Walp. Ann.* ii. p. 724.

Vitis leeoides, *Maxim. in Mél. Biol.* ix. p. 148.

SHANTUNG (*Maingay* !); KWANGTUNG: without locality

(*Beechey*!), Macao (*Vachell*!), Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wright*! *Tate*! *Lamont*! *Seemann*!). Mus. Brit.; Herb. Kew.

Japan; Malacca.

Different as the extreme forms are, there is no doubt that *V. leeoides* is the same as *V. cantoniensis*, and, as Hooker and Arnott remark, this is very closely allied to *Vitis orientalis*, Boiss., a native of Asia Minor.

2. **Vitis corniculata**, *Benth. Fl. Hongk.* p. 54; *Walp. Ann.* vii. p. 611.

Vitis angustifolia, *Benth. Fl. Hongk.* p. 54, *vix Wall.*

KWANGTUNG: Lofaushan at 3200 feet (*Ford*?); HONGKONG (*Harland*! *Wilford*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

3. **Vitis flexuosa**, *Thunb. in Trans. Linn. Soc.* ii. p. 332; *DC. Prodr.* i. p. 634; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 92.

Vitis parvifolia, *Roxb. Fl. Ind.* i. p. 662; *Benth. Fl. Hongk.* p. 53; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 652.

Vitis succisa, *Hance in Walp. Ann.* ii. p. 231.

KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*A. Henry*!); HONGKONG (*Wilford*! *Champion*! *Hance*!); COREAN ARCHIPELAGO: Herschel Island (*Oldham*, 174!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Kashmir to Nepal and in the Malay Archipelago.

4. **Vitis Hancockii**, *Hance in Journ. Bot.* 1882, p. 4.

CHEKIANG: Ningpo (*Hancock* ex *Hance*).

5. **Vitis Henryana**, *Hemsl.*, n. sp.

*Scandens*, glabrescens, ramulis crassiusculis angulatis. *Folia* longe petiolata, digitatim 3–5-foliolata; foliola breviter petiolulata, vel lateralia in fol. 5-foliol. subsessilia, papyracea, primum præcipue secus venas primarias puberula, valde inæqualia, obovata vel oblanceolata (lateralia variabilia), maxima ultra 6 poll. longa et fere 3 poll. lata, minima vix 2 poll. longa, lateralia interdum leviter obliqua, omnia deorsum attenuata, apice cuneata vel late rotundata simul acuminata, supra medium pauci-serrato-dentata, subtus venis primariis lateralibus conspicue elevatis; petiolus 3–5 poll. longus; stipulæ perfectæ non visæ, cito deciduæ. *Flores* mediocres, hermaphroditi, glabri, pentameri, cymoso-paniculati vel cymoso-racemosi; inflorescentia interdum usque

ad 6 poll. longa, ramulis pedicellisque brevibus gracillimis; *calyx* cupularis, truncatus, margine scariosa; *petala* cohærentia calyptratim decidua; *stamina* 5, glabra, antheris magnis; *discus* nullus; *ovarium* glabrum, 2-loculare, stigmate parvo sessili indiviso; ovula in quoque loculo 2 geminata, erecta vel adscendentia. *Fructus* deest.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

6. **Vitis heterophylla**, *Thunb. Fl. Jap.* p. 103; *DC. Prodr.* i. p. 634; *Benth. Fl. Hongk.* p. 53; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 92.

Ampelopsis heterophylla, *Sieb. et Zucc. in Abhandl. Acad. München.* 1846, p. 197.

Ampelopsis humulifolia, *Bunge, Enum. Pl. Chin. Bor.* p. 12; *Debeaux, Fl. Tchef.* p. 37.

Cissus brevipedunculata, *Maxim. Prim. Fl. Amur.* p. 68.

Cissus bryonifolia, *Regel, Fl. Ussur.* t. 3. fig. 3, *non Bunge.*

Vitis heterophyllæ varietates, *Regel, Consp. Gen. Vitis,* p. 4, *excl. Pl. Am. Bor.*

Vitis sinica, *Miq. in Journ. de Bot. Néerl.* i. p. 125?

CHIHLI, SHINGKING, and COREA, common; and extending to KANSUH, HUPEH, FORMOSA, and HONGKONG. Mus. Brit.; Herb. Kew.

Japan, common.

Even in the northern part of its area this species exhibits great variability; but whether the southern forms referred to it really belong to the same species is a little doubtful.

7. **Vitis himalayana**, *Brandis, Forest Fl. Ind.* p. 100; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 655.

Ampelopsis himalayana, *Royle, Ill. Him. Bot.* p. 149.

Cissus himalayana, *Walp. Rep.* i. p. 441.

Vitis (Cissus) semicordata, *Wall.*, β. himalayana, *Kurz ex Hance in Journ. Bot.* 1878, p. 9.

KWANGTUNG: Whampoa (*Hance*, 6055!). Herb. Kew.

Kashmir to Sikkim and the Khasia mountains.

8. **Vitis inconstans**, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 91; *Regel, Consp. Gen. Vitis,* p. 5.

Cissus Thunbergii, *Sieb. et Zucc.*, *et* Ampelopsis tricuspidata, *eorund. in Abhandl. Acad. Münch.* 1846, pp. 195 et 196.

Ampelopsis Veitchii, *Hort.*; *Gard. Chron.* 1869, p. 838, et n. s. xiv. p. 664, fig. 126.

CHIHLI: near Peking (*Bushell! Bretschneider!*); SHANTUNG: Chefoo (*hb. Forbes!*); KIANGSI: Kiukiang (*Shearer!*); KWANGTUNG: Lantao (*Cantor!*). Mus. Brit.; Herb. Kew.

Japan.

9. **Vitis japonica,** *Thunb. Fl. Jap.* p. 104; *Benth. Fl. Hongk.* p. 54 (in nota sub *V. corniculata*); *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 81; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 207.

Cissus japonica, *Willd. Sp. Pl.* i. p. 659; *DC. Prodr.* i. p. 632; *Hook. et Arn. Bot. Beech. Voy.* p. 175.

Vitis tenuifolia, *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* p. 129; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 660.

CHINA: without locality (*Bladh! Home! Beechey! Millett! Perry!*); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); KIANGSU: Kiangnan (*Staunton! Maingay! Perry!*); CHEKIANG: Meichi (*Poli* ex *Franchet*); FOKIEN: Amoy (*Fortune*, 101!); FORMOSA: Tamsui (*Oldham*, 75!); HUPEH: Ichang (*A. Henry!*); KWANGTUNG: Macao (*Callery!*). Mus. Brit.; Herb. Kew.

Widely dispersed in India and Malaya.

10. **Vitis Labrusca,** *Linn. Sp. Pl.* ed. i. p. 203; *DC. Prodr.* i. p. 634; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 93; *Regel, Consp. Gen. Vitis,* p. 7, excl. var. γ.

Vitis ficifolia, *Bunge, Enum. Pl. Chin. Bor.* p. 12; *Hance in Journ. Linn. Soc.* xiii. p. 77.

Vitis Thunbergii, *Sieb. et Zucc. in Abhandl. Acad. München.* 1846, 198.

CHIHLI: near Peking (*Tatarinow! Bunge! Bretschneider!*); KIANGSU: Fengwangshan (*hb. Forbes!*); KIANGSI: Kiukiang (*Shearer!*); FOKIEN: Amoy (*de Grijs!*); FORMOSA: Tamsui (*Oldham*, 72!); HUPEH: Ichang (*A. Henry!*); COREA: Port Chusan (*Wilford!*), Chemulpo (*Carles!*); LUCHU ARCHIPELAGO (*Wright!*). Mus. Brit.; Herb. Kew.

Japan and Sachalin, and in North America from Canada East to North Carolina.

11. **Vitis lanata,** *Roxb. Fl. Ind.* i. p. 660; *Benth. Fl. Hongk.* p. 53; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 651.

Vitis indica, *Hook. et Arn. Bot. Beech. Voy.* p. 260, *non Linn.*

FORMOSA: Kelung (*Ford!*); HONGKONG (*Wright!*); LUCHU ARCHIPELAGO (*Beechey!*). Herb. Kew.

Widely dispersed in India.

Regel treats this as a variety of *V. Labrusca*, which is perhaps the best course.

12. **Vitis pachyphylla**, *Hemsl.*, n. sp.

*Scandens*, glabrescens, ramulis crassiusculis primum parce pilosulis. *Folia* petiolata, trifoliata; foliola breviter petiolulata, glabra, crassa, coriacea vel subcarnosa, leviter inæqualia, lateralia oblique oblonga, basi rotundata, terminale obovatum basi cuneatum, omnia pauciserrata, serris callosis, vix acuta, venis immersis inconspicuis; petiolus 4–6 lineas longus, crassus, stipulæ latæ subscariosæ cito deciduæ; cirrhi crassiusculi ut videtur simplices. *Flores* 4-meri, in cymas parvas densas axillares breviter pedunculatas dispositi, pedicellis brevibus puberulis; *calyx* truncatus fere obsoletus; *petala* ovato-oblonga, circiter sesquilineam longa, recurva, subpersistentia; *stamina* parva (rudimentaria in flores ♀?); *discus* obsoletus; *ovarium* imperfecte 2-loculare, stigmate maximo, 4-lobato; ovula in quoque loculo 2, geminata. *Fructus* deest.

KWANGTUNG: Pakhoi (*Playfair*!). Herb. Kew.

13. **Vitis papillata**, *Hance in Journ. Bot.* 1878, p. 226.

HAINAN (*Bullock* ex *Hance*).

14. **Vitis planicaulis**, *Hook. f. Bot. Mag.* t. 5685; *Fl. Brit. Ind.* i. p. 658?

Vitis neurosa, *Kurz in Journ. Asiat. Soc. Beng.* xliv. 2, p. 204?

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

The typical plant inhabits the Sikkim and Khasia mountains, and presents no obvious difference, so far as the material goes, except more prominently reticulated veins on the under side of the leaves.

15. **Vitis Piasezkii**, *Maxim. in Mél. Biol.* xi. p. 207.

SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*).

16. **Vitis repens**, *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* p. 125; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 646.

Vitis cordata, *Wall.*; *Benth. Fl. Hongk.* p. 54.

FORMOSA: Tamsui (*Oldham*, 80!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Hance*, 1948!). Mus. Brit.; Herb. Kew.

Common in India and extending to the Malay Archipelago.

Lawson (*loc. cit.*) cites Roxburgh's *Cissus cordata* under both this species and *C. glauca*: it belongs to the latter.

17. **Vitis serianæfolia,** *Maxim. in Mél. Biol.* ix. p. 149.

Vitis pentaphylla, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 91; *Baker & S. Moore in Journ. Linn. Soc.* xvii. p. 381, *non Thunb.*

Ampelopsis serianæfolia *et* A. aconitifolia, *Bunge, Enum. Pl. Chin. Bor.* p. 12; *Hance in Journ. Linn. Soc.* xiii. p. 77.

Paullinia japonica, *Thunb. Fl. Jap.* p. 170.

Cissus viticifolia, *Sieb. et Zucc. in Abhandl. Acad. Münch.* 1846, p. 190.

CHIHLI: between Peking and Jehol (*Staunton*!), near Peking (*Tatarinow*! *Bretschneider*!); SHINGKING: Jaoling (*Ross*!), Talienwhan (*Birnie*!); SHANTUNG: Chefoo (*Perry*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Japan.

18. **Vitis vinifera,** *Linn. Sp. Pl.* ed. i. p. 202; *Lour. Fl. Cochinch.* p. 155; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 92; *Laws. in Hook. f. Fl. Brit. Ind.* i. p. 652.

Vitis amurensis, *Rupr. Pl. Maack.* p. 524; *Franchet, Pl. David.* p. 74; *Baker & S. Moore in Journ. Linn. Soc.* xvii. p. 381.

Vitis bryoniæfolia, *Bunge, Enum. Pl. Chin. Bor.* p. 11; *Hance in Journ. Bot.* 1882, p. 3; *Maxim. Fl. As. Or. Fragm.* p. 7.

Vitis adstricta, *Hance in Journ. Bot.* 1882, p. 258.

CHIHLI: near Peking (*Bunge*! *Tatarinow*!); SHINGKING: Jaoling (*Ross*!); KIANGSU: Fengwangshan (*hb. Forbes*!); ANWHEI: Wuhu (*Bullock*!); CHEKIANG: Ningpo (*Hancock*!). Herb. Kew.

Mediterranean region, Asia Minor, and North India.

We have followed Miquel in referring the Chinese plant to *V. vinifera*.

In connection with this species, it should be mentioned that the Abbé David, some years ago, discovered an allied species, or possibly a variety, in the mountains of Shensi, at an elevation of about 11,500 feet (3500 metres). It is remarkable in the branches being beset with prickles or bristles; and the name *Spinovitis Davidii* has been proposed for it in the 'Revue Horticole,' 1885, p. 55, fig. 10. But Mr. Carrière, the writer of the history of David's vine in the serial cited, states that seedlings exhibit considerable variation. Thus, the bark of some is perfectly smooth, while in others it is clothed with long, harsh, or sometimes even prickly hairs. There is in the Kew Herbarium a very imperfect specimen of a "Thorny Vine" communicated by Consul Cooper, who states in a note that it is cultivated in the Ningpo district

for its large purple grapes. Better specimens and further information are desired.

Carrière incidentally mentions the names *Vitis Chiaisii*, *V. Retordi*, and *V. Romaneti*; the last also a discovery of David in the mountains of Shensi.

19. **Vitis umbellata,** *Hemsl.*, n. sp.

*Scandens*, glabra, ramulis gracillimis. *Folia* petiolata, digitatim 3–5-foliolata; foliola subsessilia, papyracea, inæqualia, elliptica vel oblanceolata, 1–2 poll. longa, utrinque cuneata, apice calloso-apiculata, pauci-setoso-crenata, subtus pallidiora, venis primariis paucis sat conspicuis; petiolus 1–1½ poll. longus, graciliusculus; stipulæ latæ, subscariosæ, persistentes; cirrhi oppositifolii, alte umbellatim ramosi, ramulis 5–6 filiformibus. *Flores* 4-meri, unisexuales (♀ tantum visi), umbellati, umbellis 20–25-floris pedunculatis axillaribus foliis brevioribus; pedunculi infra medium bracteis 2–4, stipulis simillimis, instructi; pedicelli graciles, 4–6 lineas longi; *calyx* brevissimus, truncatus vel obscure lobatus; *petala* ovato-oblonga, vix sesquilineam longa, persistentes, demum reflexa; *stamina* rudimentaria, minuta; *discus* carnosus; *ovarium* 2-loculare, stigmate 4-lobato; ovula in quoque loculo 2, geminata, erecta. *Fructus* non visus.

FORMOSA: Tamsui (*Oldham*, 79!). Mus. Brit.; Herb. Kew.

20. **Vitis,** sp.

KIANGSU: Kiukiang (*Maries*!). Herb. Kew.

A very young specimen, bearing small, narrow, spike-like peduncled inflorescences less than half an inch long. Allied to *V. parvifolia.*

21. **Vitis,** sp.

KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

A very distinct species, having small, simple, cordate leaves clothed with a dirty white tomentum. Flowers and fruit wanting.

22. **Vitis,** sp.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

Allied to *V. serianæfolia,* but the specimen bearing a few scattered fruits is insufficient for description.

23. **Vitis,** sp.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

Allied to *V. himalayana*, with hairy foliage and much smaller flowers.

24. **Vitis**, sp.

FORMOSA: Tamsui (*Oldham*, 78!). Mus. Brit.; Herb. Kew.

There are no flowers of this, which in foliage is nearest *V. corniculata*, Benth., though evidently different. A fragment in the Kew Herbarium from Luchu (*Beechey*) may be the same.

## 41. SAPINDACEÆ.

1. **Cardiospermum Corindum**, *Linn. Sp. Pl.* ed. 2, p. 526; *Lour. Fl. Cochinch.* p. 239; *DC. Prodr.* i. p. 602; *Radlk. in Sitzungsb. königl.-bayer. Akad. Wiss., math.-phys. Cl.* 1878, p. 261.

Cardiospermum canescens, *Wall. Pl. As. Rar.* i. p. 14, t. 14; *Hiern in Hook. f. Fl. Brit. Ind.* i. p. 670.

YUNNAN (*Anderson*!). Herb. Kew.

Tropical Asia, Africa, and America.

2. **Cardiospermum Halicacabum**, *Linn. Sp. Pl.* ed. 1, p. 366; *DC. Prodr.* i. p. 601; *Benth. Fl. Hongk.* p. 46; *Hance in Journ. Bot.* 1878, p. 226; *Radlk. in Sitzungsb. königl.-bayer. Akad. Wiss., math.-phys. Cl.* 1878, p. 261.

Cardiospermum microcarpum, *H. B. K. Nov. Gen. et Sp.* v. p. 104; *Hance in Journ. Linn. Soc.* xiii. p. 101, et *in Journ. Bot.* 1878, p. 226.

HUPEH to FORMOSA, HONGKONG, and HAINAN. Mus. Brit.; Herb. Kew.

Common in the warm regions of Asia, Africa, America, and Australia.

Both typical and the variety *microcarpum* occur in China.

1. **Schmidelia Cobbe**, *DC. Prodr.* i. p. 610; *Hance in Journ. Bot.* 1879, p. 10.

Allophylus Cobbe, *Blume, Rumph.* iii. p. 131; *Hiern in Hook. f. Fl. Brit Ind.* i. p. 673, *in part.*

HAINAN (*Bullock* ex *Hance*).

Very common in tropical Asia and extending to Australia.

1. **Koelreuteria paniculata**, *Laxm. Nov. Comm. Petr.* xvi. p. 561; *DC. Prodr.* i. p. 616; *Bunge, Enum. Pl. Chin. Bor.* p. 11; *Bot. Reg.* t. 330; *Nouv. Duham.* t. 36; *Franchet, Pl. David.* p. 75.

Koelreuteria paullinioides, *L'Hérit. Sert. Angl.* p. 18, t. 19 (paniculata in tab.).

Sapindus chinensis, *Linn. Syst. Veg.* ed. 13, p. 315, *et Suppl.* p. 228.

CHIHLI: near Peking (*Bunge*! *Bushell*! *David*, 2385!); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz MSS.*). Mus. Brit.; Herb. Kew.

Japan.

1. **Æsculus chinensis,** *Bunge, Enum. Pl. Chin. Bor.* p. 10; *Walp. Rep.* i. p. 423; *Hance in Journ. Bot.* 1870, p. 312.

CHIHLI: near Peking (*Skatchkow*! *Bushell*! *Bretschneider*!); SHENSI (*Piasezki* ex *Maximowicz*). Herb. Kew.

Miquel (Ann. Mus. Bot. Lugd.-Bat. iii. p. 93) suggests that this is the same as *Æ. turbinata*, Blume, a very distinct species, judging from the Japanese specimens at Kew.

2. **Æsculus turbinatus,** *Blume, Rumph.* iii. p. 195; *Debeaux, Fl. Shangh.* p. 22.

KIANGSU (Shanghai) and CHEKIANG (ex *Debeaux*).

Japan.

1. **Sapindus Mukorossi,** *Gærtn. Fruct.* i. p. 342, t. 70; *DC. Prodr.* i. p. 608; *Bretschn. Early Res.* p. 144.

Sapindus abruptus, *Lour. Fl. Cochinch.* p. 238, *ex descript.*

CHEKIANG: Ningpo (*Allen* in hb. Forbes!); FOKIEN: Foochow (*Bourne*!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: cult. (ex *Lourèiro*), Canton (*Reeves*!). Herb. Kew.

Introduced in Japan.

1. **Nephelium Litchi,** *Camb. in Mém. Mus. Par.* xviii. p. 30; *Benth. Fl. Hongk.* p. 47; *Wight, Ic. Pl. Ind. Or.* t. 43.

Dimocarpus Lichi, *Lour. Fl. Cochinch.* p. 233; *Bretschn. Early Res.* p. 144.

Scytalia chinensis, *Gærtn. Fruct.* i. p. 197, t. 42.

Litchi chinensis, *Sonnerat, Voy. aux Ind. et Ch.* iii. p. 255, t. 129.

KWANGTUNG and HONGKONG: wild and cultivated. Herb. Kew.

Also commonly cultivated in India and Malaya.

2. **Nephelium Longana,** *Camb. in Mém. Mus. Par.* xviii. p. 30; *Bot. Mag.* t. 4096; *Benth. Fl. Hongk.* p. 47; *Hiern in Hook. f. Fl. Brit. Ind.* i. p. 688.

Dimocarpus Longan, *Lour. Fl. Cochinch.* p. 233; *Trans. Hort. Soc. Lond.* ii. t. 28.

Euphoria Longana, *Lam. Encycl.* iii. p. 574; *DC. Prodr.* i. p. 611.

FORMOSA (*Oldham*!). Mus. Brit.; Herb. Kew.

Commonly cultivated in China, India, and Malaya, and probably not truly wild in China.

1. **Xanthoceras sorbifolia,** *Bunge, Enum. Pl. Chin. Bor.* p. 11; *Walp. Rep.* i. p. 422; *Hance in Journ. Bot.* 1870, p. 313; *Franchet, Pl. David.* p. 75; *Fl. des Serres,* t. 1899; *Rev. Hort.* 1872, p. 291, cum ic. color.; *Ill. Hort.* xxiv. 1877, t. 295; *Gard. Chron.* n. s. v. p. 565, cum fig. xylogr.; *Garden,* Decr. 18, 1875, cum ic. color.; *Berl. Gart. Zeit.* 1884, p. 244, cum fig. xylogr.

CHIHLI: near Peking (*Tatarinow*! *Bunge*! *Bretschneider*!). Herb. Kew.

1. **Acer discolor,** *Maxim. in Mél. Biol.* x. p. 589, et xi. p. 350, cum tab. fig. 6; *Pax in Engler's Jahrb.* vii. p. 253.

SHENSI and KANSUH: various localities (*Piasezki* ex *Maximowicz*).

2. **Acer Fabri,** *Hance in Journ. Bot.* 1884, p. 76; *Pax in Engler's Jahrb.* vii. p. 210.

KWANGTUNG: Lofaushan (*Faber* ex *Hance*).

3. **Acer Hookeri,** *Miq. in Archives Néerl.* ii. p. 471; *Hiern in Hook. f. Fl. Brit. Ind.* i. p. 694, var.?

KIANGSI: Kiukiang (*Maries*!). Herb. Kew.

Typical *A. Hookeri*, Miq., inhabits the Eastern Himalayas.

4. **Acer japonicum,** *Thunb. Fl. Jap.* p. 161, et *Ic. Pl. Jap.* t. 20; *Sieb. et Zucc. Fl. Jap.* ii. p. 82, t. 144; *Maxim. in Mél. Biol.* x. p. 605?

Acer Sieboldianum, *Miq. var.? Baker & S. Moore in Journ. Linn. Soc.* xvii. p. 380.

SHINGKING: Changdien (*Ross*!). Herb. Kew.

A very young and imperfect specimen.

5. **Acer Lobelii,** *Ten. Cat. Hort. Napol. App. altera,* p. 69; *Maxim. in Mél. Biol.* x. p. 602; *Franchet, Pl. David.* p. 77; *Pax in Engler's Jahrb.* vii. p. 236.

Acer lætum, *C. A. Mey. Verz. Pfl. Cauc.* p. 206.

CHIHLI: Jéhol (*David* ex *Franchet*).

This species is very variously limited by different botanists. Hiern (Hook. f. Fl. Brit. Ind. i. p. 696) combines *A. lætum*,

C. A. Mey., *A. truncatum*, Bunge, *A. cultratum*, Wall., *A. Mono*, Maxim., &c. with *A. pictum*, Thunb., while Maximowicz, Nicholson, and Pax retain *pictum* and *truncatum* as distinct species.

6. **Acer oblongum,** *Wall. in DC. Prodr.* i. p. 593; *Benth. Fl. Hongk.* p. 47; *Maxim. in Mél. Biol.* x. p. 599; *Nichol. in Gard. Chron.* n. s. xv. p. 532; *Pax in Engler's Jahrb.* vii. p. 208; *Camb. in Jacq. Voy., Bot.* t. 34.

HONGKONG (*Wright*! *Ford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Himalaya mountains, from Kashmir eastward.

7. **Acer palmatum,** *Thunb. Fl. Jap.* p. 162; *Maxim. in Mél. Biol.* x. p. 607; *Nichol. in Gard. Chron.* n. s. xvi. p. 136; *Pax in Engler's Jahrb.* vii. p. 201.

Acer dissectum *et* A. septemlobum, *Thunb. Fl. Jap.* pp. 160–162.

Acer polymorphum *et* A. sessilifolium, *Sieb. et Zucc. in Abhandl. königl.-bayer. Akad. Wiss.* iv. 2, p. 158, et *Fl. Jap.* ii. tt. 145 et 146.

CHEKIANG: Chapoo, cult. (*Oldham*!). Herb. Kew.

It is doubtful whether this very common and very variable Japanese species exists in a wild state in China.

8. **Acer pictum,** *Thunb. Fl. Jap.* p. 161, et *Ic. Pl. Jap.* t. 43; *Maxim. in Mél. Biol.* x. p. 599; *Nichol. in Gard. Chron.* xvi. p. 375; *Pax in Engler's Jahrb.* vii. p. 235; *Baker & S. Moore in Journ. Linn. Soc.* xvii. p. 380; *Franchet, Pl. David.* p. 77.

Acer Mono, *Maxim. Prim. Fl. Amur.* p. 68.

CHIHLI: between Peking and Jehol (*Staunton*!); SHINGKING: Kwandien and Chienshan (*Ross*!). Mus. Brit.; Herb. Kew.

Mandshuria; Japan.

9. **Acer pilosum,** *Maxim. in Mél. Biol.* x. pp. 590 et 604, et xi. p. 350, cum tab. figg. 1–5; *Pax in Engler's Jahrb.* vii. p. 187.

KANSUH: in the plain towards the south (*Piasezki* ex *Maximowicz*).

Japan.

10. **Acer reticulatum,** *Champ. in Hook. Kew Journ. Bot.* iii. p. 312; *Seem. Bot. Voy. 'Herald,'* p. 368, t. 80; *Benth. Fl. Hongk.* p. 47; *Maxim. in Mél. Biol.* x. p. 599; *Pax in Engler's Jahrb.* vii. p. 209.

HONGKONG (*Wilford*! *Champion*!). Herb. Kew.

11. **Acer rufinerve,** *Sieb. et Zucc. in Abhandl. königl.-bayer*

*Akad. Wiss.* iv. 2, p. 155, et *Fl. Jap.* ii. p. 85, t. 148; *Maxim. in Mél. Biol.* x. p. 596; *Engler's Jahrb.* vi. p. 59; *Pax in Engler's Jahrb.* vii. p. 247.

LUCHU ARCHIPELAGO (*Döderlein* ex *Engler*).

Japan.

12. **Acer tataricum,** *Linn. Sp. Pl.* ed. 1, p. 1054; *DC. Prodr.* i. p. 593; *Maxim. in Mél. Biol.* x. p. 604; *Franchet, Pl. David.* p. 76 (varietates); *Hance in Journ. Bot.* 1882, p. 4.

Acer Ginnala, *Maxim. Prim. Fl. Amur.* p. 67.

CHIHLI: Jehol (*David*, 1789!); KIANGSI: Kiukiang (*Maries*!); HUPEH: Ichang (*A. Henry*!). Herb. Kew.

South-eastern Europe and Turkestan to Japan.

13. **Acer trifidum,** *Hook. et Arn. Bot. Beech. Voy.* p. 174, non *Thunb.*; *Maxim. in Mél. Biol.* x. p. 603; *Sieb. et Zucc. Fl. Jap.* ii. p. 81, t. 143 (excl. fig. i. et 1–4); *Pax in Engler's Jahrb.* vii. p. 186; *Hance in Journ. Bot.* 1873, p. 168 (var. *ningpoense*).

CHINA: without locality (*Cunningham* in herb. Sloane, xciv. p. 160, and cclii. p. 50!); KIANGSU: Shanghai (*hb. Forbes*!); CHEKIANG: Ningpo (*Swinhoe*, hb. Hance, 17693!); KIANGSI: Kiukiang (*Maries*!). Mus. Brit.; Herb. Kew.

Japan.

Maximowicz states (*loc. sup. cit.*) that *Acer trifidum*, Thunb., is *Lindera triloba*, Blume.

14. **Acer truncatum,** *Bunge, Enum. Pl. Chin. Bor.* p. 10; *Maxim. in Mél. Biol.* x. p. 606; *Franchet, Pl. David.* p. 76, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 208; *Pax in Engler's Jahrb.* vii. p. 234.

CHIHLI: near Peking (*Bunge*! *Kirilow*! *Skatschkow*! *Bushell*! *David*! *Bretschneider*!); SHANTUNG: Chefoo (*hb. Forbes*!); KIANGSI: Kiukiang (*Maries*?). Mus. Brit.; Herb. Kew.

15. **Acer villosum,** *Wall. Pl. As. Rar.* ii. p. 4; *Brandis, For. Fl. Ind.* p. 111; *Hiern in Hook. f. Fl. Brit. Ind.* i. p. 695.

Acer sterculiaceum, *Wall. Pl. As. Rar.* ii. p. 3, t. 105.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

Himalayas, from Kashmir to Nepal.

1. **Dodonæa viscosa,** *Linn. Mant.* p. 228; *DC. Prodr.* i. p. 616; *Hiern in Hook. f. Fl. Brit. Ind.* i. p. 697; *Hance in Journ. Bot.* 1880, p. 260.

Generally dispersed in warm countries, including SOUTH CHINA. Herb. Kew.

1. **Euscaphis staphyleoides**, *Sieb. et Zucc. Fl. Jap.* i. p. 124, t. 67; *Hance in Journ. Bot.* 1880, p. 260, et 1882, p. 4; *Franchet, Pl. David.* p. 78.

CHEKIANG: Ningpo (*Carles*!); KIANGSU: Fengwangshan (*hb. Forbes*!); KIANGSI: Kiukiang (*Maries*! *Shearer*!); HUPEH: Ichang and Patung; "seed used as a drug" (*A. Henry*!). Mus. Brit.; Herb. Kew.

Japan.

1. **Turpinia arguta**, *Seem. Bot. Voy. 'Herald,'* p. 371; *Benth. Fl. Hongk.* p. 48.

Ochranthe arguta, *Lindl. Bot. Reg.* t. 1819.

Eyrea vernalis, *Champ. in Hook. Kew Journ. Bot.* iii. p. 331.

Staphylea simplicifolia, *Gardn. et Champ. in Hook. Kew Journ. Bot.* i. p. 309.

FOKIEN: Amoy (*Fortune*, A 124!); FORMOSA: Tamsui (*Oldham*, 81?); HONGKONG (*Champion*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

The specimens from Formosa have much smaller flowers, and present other trifling differences from typical *T. arguta*; more complete material may prove the Formosa plant to be a distinct species, or, perhaps, a simple-leaved state of *T. pomifera.*

2. **Turpinia pomifera**, *DC. Prodr.* ii. p. 3; *Hiern in Hook. f. Fl. Brit. Ind.* i. p. 698.

Turpinia nepalensis, *Wall.*; *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* i. p. 156; *Wight, Ic. Pl. Ind. Or.* t. 972; *Benth. Fl. Hongk.* p. 48.

KIANGSU: Fengwangshan (*hb. Forbes*!); YUNNAN (*Anderson*!); HONGKONG (*Wright*! *Champion*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Very common and widely spread in tropical Asia.

## 42. SABIACEÆ.

1. **Sabia japonica**, *Maxim. in Mél. Biol.* vi. p. 202, et *Fl. As. Or. Fragm.* p. 7.

Sabia Bullockii, *Hance in Journ. Bot.* 1878, p. 9, et 1883, p. 296.

CHINA, without locality (*Fortune*, 7!); CHEKIANG: Ningpo (*Everard*!); KIANGSI: Kiukiang (*Shearer*!); KWANGTUNG:

North river (*Bullock* ex *Hance*, 19964). Mus. Brit.; Herb. Kew.

Japan.

2. **Sabia limoniacea**, *Wall. Cat.* n. 1000; *Benth. Fl. Hongk.* p. 70; *Hook. f. Fl. Brit. Ind.* ii. p. 3.

Sabia paniculata, *Seem. Bot. Voy. 'Herald,'* p. 362, *non Edgew.*

Androglossum reticulatum, *Benth. in Hook. Kew Journ. Bot.* iv. p. 42; *Walp. Ann.* iv. p. 437.

HONGKONG (*Champion*! *Wilford*!). Herb. Kew.

India, from Sikkim to Bhotan, Assam, and Chittagong.

3. **Sabia Swinhoei**, *Hemsl.*, n. sp.

*Frutex* ut videtur scandens, ramulis ultimis floriferis gracilibus pubescentibus. *Folia* breviter petiolata, coriacea, oblonga, usque ad 2 poll. longa (bene evoluta forsan majora), vix acuta, integra, supra costa tantum puberula, subtus pallidiora, pubescentia, venis laxiuscule reticulatis subtus elevatis. *Flores* pentameri, circiter sesquilineam longi, in cymas breves axillares sæpius trifloras dispositi, pedunculis pedicellisque filiformibus pubescentibus; *sepala* anguste ovata, vix acuta, pubescentia, petalis opposita et multo breviora; *petala* ovata, longe acuminata; *stamina* parva, petalis opposita; *discus* annulatus, obscure lobatus; *ovarium* glabrum, 2-loculare, stylo gracili; ovula in quoque loculo 2, superposita. *Fructus* non visus.

FORMOSA (*Swinhoe*!). Herb. Kew.

Near the Indian *S. parviflora*, Wall., but readily distinguished by its entire, shortly petiolate, more coriaceous leaves, pubescent and strongly veined below.

1. **Meliosma Fordii**, *Hemsl.*, n. sp.

*Arbor* 40-pedalis (*Ford*), ramulis ultimis floriferis appresso ferrugineo-pubescentibus vel strigillosis. *Folia* simplicia, longe graciliterque petiolata, papyracea vel subcoriacea, lanceolata vel oblanceolata, cum petiolo 6–12 poll. longa (inferiora forsan multo longiora), integra vel apicem versus interdum utrinque 1–3-dentata, sæpius acuminata vix acuta, deorsum gradatim attenuata, supra præter costam strigillosam glabra vel cito glabrescentia, deinde nitida, subtus pallida, venis lateralibus primariis numerosis costaque prominentibus minute strigillosis. *Flores*, ut videtur, minuta (petala et stamina desunt), paniculata, breviter pedicellata; paniculæ amplissimæ, terminales vel subterminales, ramulis

gracillimis. *Fructus* immaturus 1½–2 lineas diametro tantum visus.

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

Allied to *M. dilleniæfolia*, Hook. f., and *M. simplicifolia*, Roxb., differing from the former in having entire or almost entire leaves, with fewer and less conspicuous lateral veins, and from the latter in having pedicellate flowers, &c.

2. **Meliosma myriantha**, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 45.

COREAN ARCHIPELAGO: Herschel Island (*Oldham*, 183/1 !). Herb. Kew.

Japan.

This is perhaps a variety of the Himalayan *M. dilleniæfolia*, Hook. f. An imperfect specimen in the Kew Herbarium from Ichang may belong to the same species.

3. **Meliosma Oldhami**, *Maxim. in Mél. Biol.* vi. p. 263.

COREAN ARCHIPELAGO, without locality (*Oldham*, 183 !). Herb. Kew.

4. **Meliosma patens**, *Hemsl.*, n. sp.

*Arbor* 20-pedalis (*Ford*), ramulis ultimis crassiusculis ferrugineo puberulis. *Folia* patentissima, longe petiolata, coriacea, anguste lanceolata vel oblanceolata, 6–10 poll. longa, 1 ad fere 2 poll. lata, integra, utrinque præcipue deorsum insigniter attenuata, acuta, supra glabra, costa impressa, subtus præsertim in venis ferrugineo-pubescentia, venis primariis lateralibus numerosis conspicue elevatis; petiolus 1–2 poll. longus, teres, basi incrassatus. *Flores* hermaphroditi, parvi, subsessiles vel breviter pedicellati, glomerati, racemoso-paniculati; paniculæ erectæ, amplissimæ, terminales, ferrugineo-pubescentes, ramulis lateralibus patentissimis; *sepala* orbicularia, valde inæqualia, extus plus minus pubescentia, ciliolata; *petala* glabra, imbricata, 3 majora orbicularia, striata; *stamina* 5, quorum 3 deformata, 2 fertilia; *ovarium* glabrum, compressum, 2-loculare, stylo elongato; ovula in quoque loculo 2, superposita. *Fructus* deest.

HONGKONG: Victoria Peak and Saywan (*Ford*!). Herb. Kew.

5. **Meliosma rigida**, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 45; *Maxim. in Engler's Jahrb.* vi. p. 60.

Meliosma pungens, *Hook. f. Fl. Brit. Ind.* ii. p. 4.

Millingtonia pungens, *Wall. Cat.* no. 8114; *Royle, Ill. Bot. Himal.* p. 139.

FORMOSA: without locality (*Oldham*, 85/1 !), Kelung (*Ford* !); LUCHU ARCHIPELAGO (*Wright* !). Mus. Brit.; Herb. Kew.

Japan; Himalayas.

6. **Meliosma rhoifolia,** *Maxim. in Mél. Biol.* vi. p. 262.

FORMOSA: Tamsui (*Oldham*, 85, 86 !). Mus. Brit.; Herb. Kew.

7. **Meliosma squamulata,** *Hance in Journ. Bot.* 1876, p. 364.

HONGKONG: Wongneichung (*Lamont* ex *Hance*), Victoria Peak (*Ford* !). Mus. Brit.; Herb. Kew.

8. **Meliosma Wallichii,** *Planch.* ex *Hook. f. Fl. Brit. Ind.* ii. p. 6.

COREA: Port Chusan (*Wilford* !); COREAN ARCHIPELAGO: Herschel Island (*Oldham*, 183 !). Herb. Kew.

## 43. ANACARDIACEÆ.

1. **Rhus Cotinus,** *Linn. Sp. Pl.* ed. 1, p. 267; *DC. Prodr.* ii. p. 67; *Jacq. Fl. Austr.* iii. p. 6, t. 210.

Cotinus coggygria, *Scop. Fl. Carn.* i. p. 22; *Engler in DC. Monogr. Phanerog.* iv. p. 350 (varietates).

CHIHLI: near Peking (*Bushell* ! *Bretschneider* ! *Williams* !); CHEKIANG: Ningpo (*Cooper* !); HUPEH: Ichang (*A. Henry* !); SHENSI (*Piasezki* ex *Maximowicz MSS.*). Herb. Kew.

South of France and Syria to North India; and in North America.

2. **Rhus hypoleuca,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 43; *Walp.* iv. p. 447; *Benth. Fl. Hongk.* p. 69; *Seem. Bot. Voy. 'Herald,'* p. 372; *Engler in DC. Monogr. Phanerog.* iv. p. 378.

Rhus microlepis, *Turcz. in Bull. Soc. Nat. Mosc.* 1858, i. p. 468, ex *Engler*.

CHINA: without locality (*Fortune*, 24 ! β. serrata, *Engler, MSS. in hb. Kew.*); HONGKONG (*Champion* ! *Wilford* ! *Urquhart* ! *Seemann* !). Mus. Brit.; Herb. Kew.

Turczaninow's *R. microlepis* was founded upon Fortune's "97, A," a number not found in *Rhus*, either at Kew or the British Museum. It is possible that we may have it under something else, though we do not find it.

3. **Rhus semialata,** *Murr. in Goett. Verh.* 1784, p. 27, t. 3; *DC. Prodr.* ii. p. 67; *Engler in DC. Monogr. Phanerog.* iv. p. 380

(varietates *α*. Osbeckii, *DC.*, *et β*. Roxburghii, *DC.*); *Franchet, Pl. David.* p. 78, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 208; *Hook. f. Fl. Brit. Ind.* ii. p. 10; *Hanb. Science Papers*, p. 266.

Rhus javanica, *Linn. Sp. Pl.* ed. 1, p. 265; *Lour. Fl. Cochinch.* p. 183.

Rhus chinensis, *Mill. Dict.* ed. 8, no. 7.

CHINA: without locality (*Millett*! *Parkes*!); CHIHLI: near Peking (*Bretschneider*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); CHEKIANG: Ningpo (*Oldham*, 71!); CHUSAN (*Calléry* ex *Engler*); FORMOSA: Tamsui (*Oldham*, 87!); HUPEH: Ichang (*A. Henry*!); SHENSI or KANSUH; Tsunglin range (*Piasezki* ex *Maximowicz*); KWANGTUNG: Whampoa (*Robertson*!). Mus. Brit.; Herb. Kew.

Japan and Himalaya and Khasia mountains.

Hance (Journ. Linn. Soc. xiii. p. 101) records this species from Hongkong, but from his own remarks it seems probable that he had a variety of *R. hypoleuca* before him. It yields the Chinese Galls of commerce—the Woo-pei-tsze. Dr. A. Henry designates it the "Red Gall-nut Tree" of Hupeh, the galls of which are used in medicine.

4. **Rhus Succedanea**, *Linn. Mant.* p. 221; *DC. Prodr.* ii. p. 68; *Benth. Fl. Hongk.* p. 69; *Wight, Ic. Pl. Ind. Or.* t. 560; *Hook. f. Fl. Brit. Ind.* ii. p. 12; *Franchet, Pl. David.* p. 79.

Rhus Succedanea, *Linn.*, *var.* japonica, *Engler in DC. Monogr. Phanerog.* iv. p. 399.

Connarus juglandifolius, *Hook. et Arn. Bot. Beech. Voy.* p. 179.

KIANGSU: Kiangnan (*Staunton*!); KIANGSI: Kiukiang (*Shearer*!); HONGKONG (*Champion*! *Forbes*! *Wright*! *Lamont*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan and the Himalayas, from Kashmir to Sikkim and Bhotan, and in the Khasia mountains; also in Java. The Indian specimens belong to slightly different varieties.

Engler (in *op. sup. cit.*) records this species from Jehol, Chihli, yet nothing answering to it is enumerated in the "Plantæ Davidianæ"; and Franchet (in Mém. Soc. Sc. Nat. Cherbourg, xxiv. p. 208) doubtingly refers to it a plant from Chefoo, Shantung.

5. **Rhus sylvestris**, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 32; *Engler in DC. Monogr. Phanerog.* iv. p. 396.

KIANGSU: Fengwangshan (*hb. Forbes*!); CHEKIANG: Huchau (*hb. Forbes*!); HUPEH: Ichang (*A. Henry*!); COREA: Chemulpo (*Carles*?); COREAN ARCHIPELAGO (*Oldham*, 187!). Herb. Kew.

Japan.

6. **Rhus trichocarpa**, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. 84; *Engler in DC. Monogr. Phanerog.* iv. p. 379.

COREA: Chemulpo (*Carles*!). Herb. Kew.

Japan.

7. **Rhus vernicifera**, *DC. Prodr.* ii. p. 68, *pro parte*; *Engler in DC. Monogr. Phanerog.* iv. p. 398; *Hance in Journ. Bot.* 1882, p. 259; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 84.

Rhus vernix, *Thunb. Fl. Jap.* p. 121.

HUPEH: Ichang (*A. Henry*!); SHENSI (*Piasezki* ex *Maximowicz MSS.*); SZECHUEN (*Parker* ex *Hance*). Herb. Kew.

Japan.

Excellent specimens recently received at Kew from Dr. A. Henry confirm Hance and Maximowicz's records of the true "Varnish Tree" growing in China. In a note accompanying the specimen, Henry states that the Varnish Tree only grows in mountainous districts, and he describes the method of obtaining the varnish, which he says is ready for use as it comes from the tree. The Indian tree formerly referred to this species is *Rhus Wallichii*, Hook. f.

In the Kew Herbarium are male specimens, from Happy Valley, Hongkong (*Ford*), of a species of *Rhus* closely resembling *R. Succedanea*, but the leaflets are borne on relatively long slender petiolules and the flowers are decandrous. There is also an imperfect specimen from Ichang (*Henry*) of a species having trifoliolate leaves, and evidently allied to *R. Toxicodendron*, Linn.

1. **Pistacia chinensis**, *Bunge, Enum. Pl. Chin. Bor.* p. 15; *Hance in Journ. Linn. Soc.* xiii. p. 77; *Engler in DC. Monogr. Phanerog.* iv. p. 291; *Franchet, Pl. David.* p. 79, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 208.

CHIHLI: near Peking (*Bushell*! *Bretschneider*!); SHANTUNG: Chefoo (*hb. Forbes*!); CHEKIANG: Ningpo (*Cooper*!); KIANGSI: Kiukiang (*Shearer*! *Maries*!); SHENSI (*David* ex *Franchet*); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*). Mus. Brit.; Herb. Kew.

1. **Mangifera indica**, *Linn. Sp. Pl.* ed. 1, p. 200; *DC. Prodr.* ii. p. 63; *Benth. Fl. Hongk.* p. 70; *Engler in DC. Monogr. Phanerog.* iv. p. 198.

HONGKONG (*Hance* ex *Engler*); KWANGTUNG (*Tate*!). Herb. Kew.

A native of tropical Asia, now generally cultivated in the tropics, and perhaps nowhere in China really indigenous.

1. **Spondias mangifera**, *Willd. Sp. Pl.* ii. p. 751; *DC. Prodr.* ii. p. 75; *Hance in Journ. Linn. Soc.* xiii. p. 101; *Engler in DC. Monogr. Phanerog.* iv. p. 248; *Wight, Illustr.* i. p. 186, t. 76.

HONGKONG (*Sampson, hb. Hance,* 9819! *Lamont*!). Mus. Brit.; Herb. Kew.

Widely dispersed in tropical Asia, both wild and cultivated.

1. **Dracontomelum mangiferum**, *Blume in Mus. Bot. Lugd.-Bat.* i. p. 231, fig. 42; *Hook. f. Fl. Brit. Ind.* ii. p. 43; *Engler in DC. Monogr. Phanerog.* iv. p. 251?

KWANGTUNG: commonly cultivated along the West river (*Ford*!). Herb. Kew.

There is a little doubt about this being the Indian and Malayan tree. Ford states that it is said to yield "Chinese Olives," a name commonly applied to the fruit of *Canarium*.

[*Augia sinensis*, Lour. Fl. Cochinch. p. 337, has not been identified.]

## 44. CORIARIEÆ.

1. **Coriaria nepalensis**, *Wall. Pl. As. Rar.* iii. t. 289; *Kurz in Journ. Bot.* 1873, p. 193; *Hook. f. Fl. Brit. Ind.* ii. p. 44.

HUPEH: Ichang (*A. Henry*!); YUNNAN: Poneshee (*Anderson*!). Herb. Kew.

Himalayas, from Marri to Sikkim.

2. **Coriaria sinica**, *Maxim. in Mém. Acad. Sc. Pétersb.* 7ᵉ série, xxix. (1881), p. 9.

SHENSI and KANSUH (*Piasezki* ex *Maximowicz*).

## 45. CONNARACEÆ.

1. **Rourea microphylla**, *Planch. in Linnæa*, xxiii. p. 421; *Walp. Ann.* iii. p. 839; *Benth. Fl. Hongk.* p. 71; *Seem. Bot. Voy. 'Herald,'* pp. 356 et 373.

Connarus microphylla, *Hook. et Arn. Bot. Beech. Voy.* p. 179.

Averrhoa sinica, *Hance in Walp. Ann.* ii. p. 241.

CHINA: without locality (*Fortune*, 116! *Millett*!); KWANGTUNG: Lofaushan (*Ford*!), Ookatsa (*Tate*!), Canton (*Millett*!); HONGKONG (*Hinds*! *Champion*! *Urquhart*! *Wilford*! *Seemann*! *Forbes*!). Mus. Brit.; Herb. Kew.

2. **Rourea Millettii,** *Planch. in Linnæa,* xxiii. p. 420.

Rourea santaloides, *Benth. Fl. Hongk.* p. 71, et *Seem. Bot. Voy. 'Herald,'* p. 372, *vix Wight et Arn.*

Connarus Roxburghii, *Hook. et Arn. Bot. Beech. Voy.* p. 179.

CHINA: without locality (*Millett*! *Beechey*!); HONGKONG (*Wright*! *Lamont*! *Ford*!). Mus. Brit.; Herb. Kew.

This and the Indian *R. commutata* should perhaps rank as varieties of *R. santaloides*. Indeed Bentham goes further and unites *R. caudata*, Planch., *R. javanica*, Blume, and *R. humilis*, Blume, with *R. santaloides*; and as thus constituted the species has a very wide range in tropical Asia. Hooker (Fl. Brit. Ind. ii. p. 47) includes China in the range of *R. commutata*, though he does not cite *R. Millettii* as a synonym.

## 46. LEGUMINOSÆ: PAPILIONACEÆ.

1. **Thermopsis fabacea,** *DC. Prodr.* ii. p. 99; *A. Gr. in Mem. Amer. Acad.* n. s. vi. p. 385.

Thermopsis chinensis, *Benth.* ex *S. Moore in Journ. Bot.* 1878, p. 131; *Hance in Journ. Bot.* 1882, p. 4.

Sophora fabacea, *Pall. Sp. Astrag. Descr. et Ic.* p. 122, t. 90. fig. 2.

KIANGSU: Shanghai (*Maingay*! *Carles*!); CHEKIANG: Ningpo (*Everard*! *Cooper*!); FOKIEN: Amoy (*Fortune*, A 54!); COREA: Jensem (*Perry*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Kamtschatka, Japan, and North-western America.

2. **Thermopsis lanceolata,** *R. Br. in Ait. Hort. Kew.* ed. 2, iii. p. 3; *DC. Prodr.* ii. p. 99; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 470; *Hance in Journ. Bot.* 1882, p. 4.

CHIHLI: Siaowutaishan (*Moellendorf*!); SHANSI: between Taining and Lichiachuang (*Pierson*!); KANSUH: north of the Hoangho (*Piasezki* ex *Maximowicz MSS.*). Herb. Kew.

Widely spread in Siberia and Mongolia.

1. **Crotalaria albida,** *Heyne in Roth, Nov. Sp.* p. 333; *DC. Prodr.* ii. p. 126; *Benth. in Hook. Lond. Journ. Bot.* ii. p. 567, et *Fl. Hongk.* p. 74; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 71.

NORTH CHINA: without locality (*Tatarinow*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Hinds*! *Champion*! *Wilford*! *Wright*!). Mus. Brit.; Herb. Kew.

Throughout tropical Asia eastward to the Philippines.

2. **Crotalaria calycina**, *Schranck, Pl. Rar. Monac.* t. 12; *DC. Prodr.* ii. p. 129; *Benth. in Hook. Lond. Journ. Bot.* ii. p. 564, et *Fl. Hongk.* p. 74; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 72.

CHINA: without locality (*Millett*!); FORMOSA: Tamsui (*Oldham*, 151!); KWANGTUNG: Macao (*Tate*! *Vachell*!); HONGKONG (*Lamont*! *Champion*! *Eyre*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and Australia.

3. **Crotalaria chinensis**, *Linn. Sp. Pl.* ed. 2, p. 1003; *DC. Prodr.* ii. p. 130; *Benth. in Hook. Lond. Journ. Bot.* ii. p. 566; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 73, *non Roxb.*; *Hance in Journ. Bot.* 1878, p. 105.

KWANGTUNG: hills of Pakwan, near Canton (*Sampson, hb. Hance*, 13340!).

India, chiefly eastern, Malaya and Philippines.

4. **Crotalaria elliptica**, *Roxb. Fl. Ind.* iii. p. 279; *Benth. in Hook. Lond. Journ. Bot.* ii. p. 580, et *Fl. Hongk.* p. 75.

Crotalaria Vachellii, *Hook. et Arn. Bot. Beech. Voy.* p. 180; *Walp. Rep.* i. p. 588.

Crotalaria splendens, *Vogel in Nov. Act. Nat. Cur.* xix. (reprint, p. 8); *Walp. Rep.* i. p. 590.

CHINA: without locality (*Millett*!); KWANGTUNG: Pakhoi (*Playfair*!), Macao (*Tate*!); HONGKONG (*Hinds*! *Champion*! *Wright*! *Forbes*! *Lamont*!). Mus. Brit.; Herb. Kew.

5. **Crotalaria ferruginea**, *Grah. in Wall. Cat.* no. 5398; *Benth. in Hook. Lond. Journ. Bot.* ii. p. 476; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 68; *Hance in Journ. Bot.* 1882, p. 4.

Crotalaria rufescens, *Franchet, Pl. David.* p. 79.

KIANGSI: Kiukiang (*David*, 792! *Shearer*!); FORMOSA (*Oldham*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Widely spread in India, and extending to the Malay Archipelago and the Philippines.

[*Crotalaria juncea*, Linn., the Sunn Hemp, a common Indian species extending to tropical Australia, is recorded from Canton in Osbeck's Travels, Engl. ed., i. p. 336.]

6. **Crotalaria leiocarpos**, *Vogel in Nov. Act. Nat. Cur.* xix. (reprint, p. 8); *Walp. Rep.* i. p. 586.

KWANGTUNG: Syngmoon promontory (*Meyen* ex *Vogel*).

7. **Crotalaria linifolia**, *Linn. f. Suppl.* p. 328; *DC. Prodr.* ii. p. 128; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 72.

FORMOSA (*Oldham*, 153!); KWANGTUNG: British Kowlung (*Ford*!). Mus. Brit.; Herb. Kew.

Tropical Asia and Australia and in the Philippines.

Ford's specimen is a marked variety with obovate leaves.

8. **Crotalaria medicaginea**, *Lam. Encycl.* ii. p. 201; *Benth. in Hook. Lond. Journ. Bot.* ii. p. 577; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 81; *Hance in Journ. Bot.* 1879, p. 10.

CHINA: without locality (*Macartney*!); KWANGTUNG: Samjung, West river (*Sampson, hb. Hance*, 9621!). Mus. Brit.; Herb. Kew.

Afghanistan to the Malay Archipelago, and Australia.

9. **Crotalaria mollis**, *Weinm. in Sylloge Ratisb.* ii. p. 25, ex *Walp. Rep.* i. p. 586.

"CHINA."

10. **Crotalaria paniculata**, *Willd. Sp. Pl.* iii. p. 982; *DC. Prodr.* ii. p. 126; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 81.

Crotalaria chinensis, *Lam. Encycl.* ii. p. 195, *nec Linn.*

"CHINA."

Western peninsula of India, and in Java.

11. **Crotalaria retusa**, *Linn. Sp. Pl.* ed. 1, p. 715; *DC. Prodr.* ii. p. 125; *Hook. et Arn. Bot. Beech. Voy.* p. 180; *Benth. in Hook. Lond. Journ. Bot.* ii. p. 480, et *Fl. Hongk.* p. 74; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 75; *Bot. Mag.* t. 2561.

Lupinus cochinensis, *Lour. Fl. Cochinch.* p. 429.

CHINA: without locality (*Millett*!); KWANGTUNG: Macao (*Vachell*! *Tate*!); HONGKONG (*Wright*!); HAINAN (*Swinhoe*!). Herb. Kew.

Tropical Asia, Australia, Africa, and America, though perhaps not indigenous in the two last countries.

12. **Crotalaria sessiliflora**, *Linn. Sp. Pl.* ed. 2, p. 1004; *DC. Prodr.* ii. p. 129; *Benth. in Hook. Lond. Journ. Bot.* ii. p. 565; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 73; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 208.

Crotalaria brevipes, *Champ. in Hook. Kew Journ. Bot.* iv. p. 44; *Benth. Fl. Hongk.* p. 74; *Debeaux, Fl. Tchef.* p. 43.

Crotalaria eriantha, *Sieb. et Zucc. Fl. Jap., Fam. Nat.* p. 13; *Maxim. Fl. As. Or. Fragm.* p. 9.

Crotalaria Oldhami, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 42.

SHINGKING: Chienshan (*Ross*!); SHANTUNG (*Maingay*!);

KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 154!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Pakhoi (*Playfair*!), Macao (*Tate*!), Lofaushan (*Ford*!); HONGKONG (*Champion*!); COREA: Chemulpo (*Carles*!); COREAN ARCHIPELAGO: Green Island (*Oldham*, 320!). Mus. Brit.; Herb. Kew.

India, from the Punjab eastward, Malaya, Japan, and the Philippines.

13. **Crotalaria striata,** *DC. Prodr.* ii. p. 131; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 84; *Hance in Journ. Bot.* 1879, p. 10; *Bot. Mag.* t. 3200.

KWANGTUNG: Whampoa, Danes Island (*Hance*, 15086!); HONGKONG (*Ford*! *Lamont*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and America.

14. **Crotalaria verrucosa,** *Linn. Sp. Pl.* ed. 1, p. 715; *DC. Prodr.* ii. p. 125; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 77.

FORMOSA: Takow (*Swinhoe*!), Tamsui (*Oldham*, 152!). Mus. Brit. Herb. Kew.

Tropical Asia, Africa, and America.

1. **Medicago denticulata,** *Willd. Sp. Pl.* iii. p. 1414; *DC. Prodr.* ii. p. 176; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 90; *Franchet, Pl. David.* p. 80.

This is now generally diffused in north temperate regions and naturalized in the south. There are Chinese specimens in the British Museum and Kew Herbaria from HUPEH and FORMOSA; Franchet records it from SHENSI, "probably introduced," and Maximowicz from KANSUH. Mus. Brit.; Herb. Kew.

2. **Medicago falcata,** *Linn. Sp. Pl.* ed. 1, p. 779; *DC. Prodr.* ii. p. 172; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 470 (flore cæruleo).

CHIHLI: Peking (ex *Maximowicz*). Mus. Brit.; Herb. Kew.

The plant collected at Jehol by David, and named *Medicago ruthenica*, Ledeb. (*Trigonella ruthenica*, Linn.), by Franchet (Pl. David. p. 80), is probably the plant intended by Maximowicz and a variety of *M. falcata*.

[*Medicago lappacea*, Lam., a European species, has been found by Lamont near the race-course and other places in Hongkong —see Hance in Journ. Bot. 1878, p. 105.]

3. **Medicago lupulina**, *Linn. Sp. Pl.* ed. 1, p. 779; *DC. Prodr.* ii. p. 172; *Benth. Fl. Hongk.* p. 75; *Debeaux, Fl. Shangh.* p. 27; *Maxim. Fl. As. Or. Fragm.* p. 7.

CHINA: apparently common, and from the most distant parts. Mus. Brit.; Herb. Kew.

Very generally diffused in temperate and subtropical Asia and Europe.

[*Medicago sativa*, Linn., is cultivated in Northern China, and also occurs in a wild state, though it is probably not indigenous.]

1. **Melilotus alba**, *Desr. in Lam. Encycl.* iv. p. 63; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 89; *Franchet, Pl. David.* p. 81.

Melilotus leucantha, *Koch*, ex *DC. Fl. Franç.* v. p. 564; *DC. Prodr.* ii. p. 187.

NORTH CHINA: without locality (*Korolkow*!); CHIHLI: Peking mountains (*David*, 468, 514, ex *Franchet*). Mus. Brit.

Now very widely spread in Europe and Asia; probably to a large extent through cultivation.

2. **Melilotus cærulea**, *Desr. in Lam. Encycl.* iv. p. 62.

Trigonella cærulea, *Ser. in DC. Prodr.* ii. p. 81; *Boiss. Fl. Or.* ii. p. 68.

SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz MSS.*).

South-eastern Europe and Asia Minor.

3. **Melilotus dentata**, *Willd. Enum. Pl. Hort. Berol.* p. 790; *DC. Prodr.* ii. p. 186; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 470.

CHIHLI: Peking (ex *Maximowicz*).

Europe, Siberia, and Mongolia.

4. **Melilotus macrorhiza**, *Pers. Syn. Pl.* ii. p. 348; *DC. Prodr.* ii. p. 187; *Ledeb. Fl. Ross.* i. p. 535; *Hance in Journ. Bot.* 1879, p. 10.

KWANGTUNG: abundant in places along the West river, and doubtless wild (ex *Hance*).

Eastern Europe and Siberia.

5. **Melilotus officinalis**, *Desr. in Lam. Encycl.* iv. p. 63; *DC. Prodr.* ii. p. 186; *Boiss. Fl. Or.* ii. p. 109.

KIANGSU (*Poli* ex *Franchet MSS.*).

Europe and Siberia.

6. **Melilotus palustris**, *Kit. in DC. Prodr.* ii. p. 187; *Bunge, Enum. Pl. Chin. Bor.* p. 15.

CHIHLI: near Kantai (ex *Bunge*).

Eastern Europe.

7. **Melilotus parviflora**, *Desf. Fl. Atl.* ii. p. 192; *DC. Prodr.* ii. p. 187; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381; *Debeaux, Fl. Shangh.* p. 27; *Franchet, Pl. David.* p. 81.

NORTH CHINA: apparently common. Mus. Brit.; Herb. Kew.

Widely spread in Europe and Asia, and introduced in many other countries.

8. **Melilotus suaveolens**, *Ledeb. Ind. Sem. Hort. Dorp., Suppl.* 1824, p. 5, et *Fl. Ross.* i. p. 536; *DC. Prodr.* ii. p. 188.

Melilotus graveolens, *Bunge, Enum. Pl. Chin. Bor.* (1832), p. 16; *Walp. Rep.* i. p. 638.

CHIHLI: near Kantai (*Bunge*!), near Peking (*Bretschneider*!). Herb. Kew.

Siberia and Mongolia.

We have not been able to verify the names of several of the *Meliloti*, but, judging from a rough sorting, there are only three species represented by Chinese specimens in the London herbaria.

1. **Trifolium Lupinaster**, *Linn. Sp. Pl.* ed. 1, p. 766; *DC. Prodr.* ii. p. 204.

SHINGKING: Kaichow to Kiuchow (*Ross*!), Peiling, Moukden (*Webster*!). Herb. Kew.

Siberia, Mongolia, Mandshuria, and Japan.

[*Trifolium indicum* and *T. globosum* of Loureiro's Fl. Cochinch. p. 444, are obscure plants.]

1. **Lotus corniculatus**, *Linn. Sp. Pl.* ed. 1, p. 775; *DC. Prodr.* ii. p. 214; *Hance in Journ. Bot.* 1882, p. 259.

FORMOSA (*Swinhoe*!); HUPEH: Ichang (*A. Henry*!); KANSUH: north of Hoangho (*Piasezki* ex *Maximowicz MSS.*); SZECHUEN (*Parker* ex *Hance*); COREA (*Perry*! *Carles*!). Herb. Kew.

Very widely spread in Europe and Asia, and occurring in North Africa and Australia.

1. **Indigofera Anil**, *Linn. Mant.* p. 272; *DC. Prodr.* ii. p. 225; *Benth. Fl. Hongk.* p. 77; *Seem. Bot. Voy. 'Herald,'* p. 373.

KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Seemann*!). Mus. Brit.; Herb. Kew.

This species is believed to be a native of America; but it is now common, wild and cultivated, in tropical Africa and some parts of Asia.

2. **Indigofera atropurpurea,** *Ham. in Horn. Hort. Hafn., Add.* p. 152, ex *DC. Prodr.* ii. p. 225; *Hance in Journ. Bot.* 1880, p. 260; *Bot. Mag.* t. 3065; *Bot. Reg.* t. 1744.

KWANGTUNG (*Staunton*!): near Fukwing (*Krone* ex *Hance*), Shinhing Pass (*Ford*!). Mus. Brit.; Herb. Kew.

India, from the Punjab to Khasia in the east.

3. **Indigofera Benthamiana,** *Hance in Ann. Sc. Nat.* 4e série, xviii. p. 219; *Walp. Ann.* vii. p. 710.

KWANGTUNG: Whampoa (*Hance*, 6063!). Herb. Kew.

4. **Indigofera Bungeana,** *Walp. in Linnæa*, xiii. p. 525; *Walp. Rep.* i. p. 668; *Franchet, Pl. David.* p. 82; *Hance in Journ. Bot.* 1875, p. 131.

Indigofera micrantha, *Bunge, Enum. Pl. Chin. Bor.* p. 16, nec alior.

CHIHLI: Peking district (*Bunge*! *Bushell*! *Bretschneider*! *Hancock*!); HUPEH: Ichang (*A. Henry*!); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz MSS.*). Herb. Kew.

5. **Indigofera chinensis,** *Vogel in Nov. Act. Nat. Cur.* xix. (reprint, p. 14); *Walp. Rep.* i. p. 669.

KWANGTUNG: near Macao (*Meyen* ex *Vogel*).

6. **Indigofera decora,** *Lindl. in Journ. Hort. Soc. Lond.* i. p. 68, et *Bot. Reg.* 1846, t. 22; *Walp. Ann.* i. p. 230; *Benth. Fl. Hongk.* p. 77; *Bot. Mag.* t. 5063.

FOKIEN: Amoy (*Fortune*, A 60!); HONGKONG (*Eyre*? ex *Bentham*). Herb. Kew.

Japan.

7. **Indigofera endecaphylla,** *Jacq. Ic. Pl. Rar.* t. 570; *DC. Prodr.* ii. p. 228; *Benth. Fl. Hongk.* p. 76; *Bot. Reg.* t. 789.

HONGKONG (*Wright*!). Herb. Kew.

Tropical Asia, and tropical and South Africa.

Bentham suggests that it may have been introduced into Hongkong, which is very likely, as it only occurs in Wright's collection.

8. **Indigofera hirsuta,** *Linn. Sp. Pl.* ed. 1, p. 751; *DC. Prodr.* ii. p. 228; *Benth. Fl. Hongk.* p. 76; *Jacq. Ic. Pl. Rar.* t. 569; *Hook. Comp. Bot. Mag.* ii. t. 24.

CHINA: without locality (*Macartney & Staunton*); FORMOSA (*Oldham*, 157!); KWANGTUNG: Macao (*Nelson*! *Vachell*! *Calléry*!), Pakhoi (*Playfair*!); HONGKONG (*Lamont*! *Hinds*! *Champion*! *Wright*! *Wilford*!). Mus. Brit.; Herb. Kew.

Widely diffused in tropical Asia, Africa, America, and Australia.

9. **Indigofera macrostachya,** *Vent. Jard. Malm.* p. et t. 44; *DC. Prodr.* ii. p. 226; *Bunge, Enum. Pl. Chin. Bor.* p. 16; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381; *Debeaux, Fl. Tchef.* p. 44; *Maxim. Fl. As. Or. Fragm.* p. 8; *Franchet, Pl. David.* p. 82.

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Tatarinow*! *Bushell*!), Jehol (*David*, 1825!); SHINGKING: Chienshan (*Ross*!), Talienwhan (*Swinhoe*! *Urquhart*! *Birnie*!); SHANTUNG: Chefoo (*Perry*!); CHEKIANG: Ningpo (*Cooper*! *Everard*!); COREA (*Carles*! *Perry*!). Herb. Kew.

[*Indigofera rotundifolia*, Lour. Fl. Cochinch. p. 458; DC. Prodr. ii. p. 233, from Canton, is an obscure plant.]

10. **Indigofera tinctoria,** *Linn. Sp. Pl.* ed. 1, p. 751; *DC. Prodr.* ii. p. 224; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 99; *Franchet, Pl. David.* p. 82.

CHIHLI: Peking mountains (*David*, 475? ex *Franchet*); FOKIEN: Amoy (*Fortune*, A 56!); FORMOSA (*Oldham*, 156!); HAINAN (*Swinhoe*). Mus. Brit.; Herb. Kew.

Generally cultivated and wild in the tropics; but it is uncertain where it is really indigenous.

11. **Indigofera trifoliata,** *Linn. Amœn. Acad.* iv. p. 327; *DC. Prodr.* ii. p. 223; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 96; *Wight, Ic. Pl. Ind. Or.* t. 314; *Hance in Journ. Bot.* 1878, p. 105.

HUPEH: Ichang (*A. Henry*!); KWANGTUNG: around Canton (*Sampson, hb. Hance*, 5685!). Herb. Kew.

Almost throughout tropical Asia, and extending to North Australia.

12. **Indigofera trita,** *Linn. f. Suppl.* p. 335; *DC. Prodr.* ii. p. 232?

Indigofera hedysaroides, *Lam. Encycl.* iii. p. 250?

Indigofera coccinea, *Lour. Fl. Cochinch.* p. 457.

KWANGTUNG: Canton (ex *Loureiro*).

*I. trita* is widely spread in tropical Asia, Africa, and Australia; whether Loureiro's plant be the same is uncertain.

13. **Indigofera venulosa,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 44; *Walp. Ann.* iv. p. 487; *Benth. Fl. Hongk.* p. 77.

CHINA, without locality (*Fortune*, 43! *Parkes*! *Daniell*!); KIANGSU: Fengwangshan (*hb. Forbes*!); KIANGSI: Kiukiang (*Maries*!); CHEKIANG: Shaoshin (*Savatier* ex *Franchet*); HONGKONG (*Champion*! *Urquhart*! *Wright*! *Lamont*!); COREAN ARCHIPELAGO: Hooper Island (*Oldham*, 324!). Mus. Brit.; Herb. Kew.

14. **Indigofera virgata, β. parvifolia,** *DC. Prodr.* ii. p. 224.

CHINA: without locality (*Staunton* ex *DeCandolle*).

1. **Tephrosia oraria,** *Hance in Journ. Bot.* 1886, p. 17.

HONGKONG (*Ford* ex *Hance*).

2. **Tephrosia purpurea,** *Pers. Syn. Pl.* ii. p. 329; *DC. Prodr.* ii. p. 251; *Benth. Fl. Hongk.* p. 78; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 112.

FORMOSA (*Swinhoe*! *Wilford*!); HONGKONG (*Champion*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Almost everywhere in the tropics.

3. **Tephrosia vestita,** *Vogel in Nov. Act. Nat. Cur.* xix. (reprint, p. 15); *Walp. Rep.* i. p. 675.

CHINA: without locality (*Meyen* ex *Vogel*; *Fortune*, 16!); KWANGTUNG: Macao (*Vachell*!). Herb. Kew.

Java and the Philippines.

4. **Tephrosia villosa,** *Pers. Syn. Pl.* ii. p. 329; *DC. Prodr.* ii. p. 251; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 113.

CHINA: without locality (*H. Bradley*, 1779!). Mus. Brit.

India, from the Himalayas to Ceylon, Mauritius, and tropical Africa.

1. **Millettia Championi**, *Benth. in Hook. Kew Journ. Bot.* iv. p. 74, et *Fl. Hongk.* p. 79; *Walp. Ann.* iv. p. 575.

HONGKONG (*Champion*! *Wright*! *Tate*!). Herb. Kew.

2. **Millettia cognata**, *Hance in Journ. Bot.* 1880, p. 260.

HUNAN: low hills on the Siang river (*Bullock* ex *Hance*).

[*Millettia cinerea*, Benth., has been doubtfully recorded as Chinese, probably through a misreading of Bentham's note in Miquel's 'Plantæ Junghuhnianæ,' p. 249.]

3. **Millettia nitida**, *Benth. in Hook. Lond. Journ.* i. p. 484, et *Fl. Hongk.* p. 78; *Walp. Rep.* i. p. 799.

Marquartia tomentosa, *Vogel in Nov. Act. Nat. Cur.* xix. (reprint, p. 35, t. 1 et 2); *Walp. Rep.* i. p. 855.

Callerya tomentosa, *Endl.*; *Walp. Rep.* v. p. 557.

CHINA: without locality (*Millett*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Urquhart*! *Wright*! *Hinds*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

4. **Millettia reticulata**, *Benth. in Miq. Pl. Jungh.* i. p. 249; *Hance in Journ. Linn. Soc.* xiii. p. 101.

CHINA: without locality (*Millett*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Fortune*, A 95!); FORMOSA (*Wilford*! *Oldham*, 158!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG (*Staunton*!); HONGKONG (*Lamont*! *Hance*, 1489!). Mus. Brit.; Herb. Kew.

5. **Millettia sericosema**, *Hance in Journ. Bot.* 1882, p. 259.

SZECHUEN (*Parker* ex *Hance*).

6. **Millettia speciosa**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 73; *Walp. Ann.* iv. p. 575; *Fl. Hongk.* p. 78.

CHINA: without locality (*Millett*!); HONGKONG (*Champion*! *Urquhart*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

7. **Millettia**?

FOKIEN: mountains near Foochowfoo (*Fortune*, 17!). Herb. Kew.

This is near the Indian *M. cinerea* in general appearance, but pods are wanting.

8. **Millettia**?

CHINA: without locality (*Millett*!) Herb. Kew.

A very distinct plant, having axillary racemes of flowers about as long as the small multifoliolate leaves; perhaps not this genus.

In addition to the foregoing, there are imperfect specimens in the Kew Herbarium of three other doubtful species of *Millettia*, namely:—Canton, *Parkes*, 117; Amoy interior, *Swinhoe*; and Ningpo, *Forbes*. See Hemsl. in Journ. Bot. 1876, p. 207.

## FORDIA, *Hemsl.*

(*Genus novum inter* Millettiam *et* Wistariam.)

*Calyx* subregularis, truncatus vel obsolete 5-dentatus. *Petala* graciliter unguiculata, vexillo amplo inappendiculato; alæ oblongæ, fere rectæ; carina obtusa leviter incurva. *Stamen* vexillare liberum; filamenta non dilatata; antheræ conformes. *Ovarium* sessile, 2-ovulatum; stylus inflexus, teres, glaber, stigmate parvo terminali. *Legumen* clavatum, compressum, coriaceum, dehiscens. *Semina* discoidea, parvistrophiolata.

1. **Fordia cauliflora**, *Hemsl.*, n. sp. (Plate IV.)

*Frutex* erectus vel vagans, ramulis crassiusculis cavis ferrugineo-pubescentibus simul crebre lenticellatis. *Gemmæ* supraxillares, cataphyllis numerosis insignibus subulatis, 6–9 lineas longis, patentibus munitæ. *Folia* imparipinnata, sesquipedalia et forsan ultra, petiolata; foliola usque ad 25, breviter petiolulata, papyracea vel fere membranacea, oblonga, ovato-oblonga vel inferiora minora ovata, minima sesquipollicaria, maxima 5-pollicaria et 1–1¼ poll. lata, longe acuteque acuminata, basi sæpius rotundata, integerrima, supra glabra vel glabrescentia, costa venisque impressis, subtus pallidiora, obscure puberula, costa venisque elevatis; petiolus basi incrassatus fere teres (ut rhachis), striatus, supra anguste canaliculatus; stipulæ subulatæ, persistentes, 9–12 lineas longæ; stipellæ filiformes, persistentes, 4–5 lineas longæ. *Flores* rosei, circiter semipollicares, racemosi, racemis semipedalibus rigidis ad ramos (vel in trunco) paullo supra terram; calyx brevis, ut videtur coloratus, pubescens; petala graciliter unguiculata, erecta, subæqualia, extus præcipue superius sericea; vexillum amplum, rotundatum; ovarium sessile, pubescens, 2-ovulatum, stylo glabro filiformi leviter inflexo. *Legumen* sessile, compressum, glabrum vel glabrescens, obscure rugulosum, coriaceum, 3–4 poll. longum et 9–12 lineas latum, sæpius 2-spermum; semina rotundata, valde compressa, fere plana, lævia, brunnea, nitida.

KWANGTUNG: on the West river (*Ford*!). Herb. et Hort. Kew.

This genus is named after Mr. Ford, the superintendent of the Hongkong Botanic Garden, to whom Botany is indebted for a considerable number of discoveries both in Hongkong and in the Chinese province of Kwangtung. It differs from the allied genera in its multifoliolate leaves, rigid racemes of flowers borne on the old wood near the ground, 2-ovulate ovary, and strophiolate discoid seeds. Judging from a small living plant sent to Kew by Mr. Ford in 1883, it has much the same habit of growth as *Wistaria sinensis*, though it may be permanently erect. From *Wistaria*, which it most nearly approaches, it differs, besides the points already mentioned, in having a truncate calyx, an inappendiculate vexillum, and a sessile ovary. The Kew cultivated plant has a relatively thick stem, bifurcate near the top, and bearing a tuft of drooping leaves of seventeen to nineteen leaflets. Ford's specimen, cultivated in the Hongkong Botanic Garden, is more vigorous *.

1. **Wistaria brachybotrys**, *Sieb. et Zucc. Fl. Jap.* i. p. 92, t. 45; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471, et *Fl. As. Or. Fragm.* p. 9.

CHIHLI: Peking (ex *Maximowicz*); CHEKIANG: Ningpo (*Hancock* ex *Maximowicz*).

Japan.

We have seen no Chinese specimens of this species, and Hancock's Ningpo specimens of a *Wistaria* in the Kew Herbarium belong to *W. chinensis*. Whether he collected both species there is uncertain.

2. **Wistaria chinensis**, *DC. Prodr.* ii. p. 390 (sphalmate Wisteria); *Walp. Rep.* i. p. 770; *Bunge, Enum. Pl. Chin. Bor.* p. 20; *Sweet, Brit. Fl. Gard.* ser. 1, t. 211; *Sieb. et Zucc. Fl. Jap.* i. p. 90, t. 44 (sinensis); *Ill. Hort.* 1858, t. 166 (var. albiflora).

Wistaria multijuga, *Van Houtte, Fl. des Serres*, t. 2002.

Wistaria Consequana, *Loud. Hort. Brit.*, et *Paxt. Mag. Bot.* vii. p. 127, cum ic. color.

Glycine chinensis, *Sims, Bot. Mag.* t. 2083.

* Since the description of this genus was published, Mr. Ford has written to the effect that the plant is of strictly erect habit.

Glycine sinensis, *Bot. Reg.* t. 650; *Lodd. Bot. Cab.* t. 773.
Wistaria floribunda, *DC. loc. cit.*
Dolichos polystachyos, *Thunb. Fl. Jap.* p. 281, *excl. synon.*
Dolichos japonicus, *Spreng. Syst. Veg.* iii. p. 252.
Glycine floribunda, *Willd. Sp. Pl.* iii. p. 1066; *Pers. Syn. Pl.* ii. p. 301.

CHIHLI: mountains of Zuweyshan (*Bunge*!), Waushoushan (*Hancock*!); KIANGSU: near Shanghai (*hb. Forbes*!); CHEKIANG: Ningpo, generally distributed throughout the district, growing in festoons over rocks (*Hancock*!); KIANGSI: Kiukiang (*Shearer*!); SHENSI (*Piasezki* ex *Maximowicz MSS.*); HONGKONG (*Wright*!). Herb. Kew.

Universally cultivated in Japan, and naturalized in a wild state in some parts, though originally introduced from China according to Siebold and Zuccarini. In Europe it bears fruit only in warm situations, and in England only in unusually warm seasons (see Dyer, in Journ. Linn. Soc. xvii. p. 329).

3. **Wistaria dubia**, *Walp. in Nov. Act. Nat. Cur.* xix., *Suppl.* i. p. 324, et *Rep.* v. p. 536.

SOUTH CHINA (ex *Walpers*).

An obscure plant, probably not of this genus.

1. **Sesbania aculeata**, *Pers. Syn. Pl.* ii. p. 316; *DC. Prodr.* ii. p. 265; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 114.

Æschynomene Sesban, *Jacq. Ic. Pl. Rar.* t. 564.

CHINA, without locality (*Fortune*, 33!); FOKIEN: Amoy (*Hance*, 1472!). Herb. Kew.

Nearly all over the tropics in the Old World.

2. **Sesbania ægyptiaca**, *Pers. Syn. Pl.* ii. p. 316; *DC. Prodr.* ii. p. 264; *Wight, Ic. Pl. Ind. Or.* t. 32.

FORMOSA: Tamsui (*Oldham*!). Mus. Brit.; Herb. Kew.

Generally dispersed in the tropics of the Old World.

1. **Sphærophysa Salsula**, *DC. Prodr.* ii. p. 271; *Ledeb. Fl. Ross.* i. p. 574; *Maxim. Ind. Pek. in Prim. Fl. Amur.* p. 471.

Phaca Salsula, *Pall. Itin.* iii. p. 216, *ex Ledeb.*

CHIHLI: Peking, river Hunho, growing in the sandy wastes in the gorges near Saukiatien (*Hancock*!). Herb. Kew.

Siberia and Mongolia.

1. **Caragana Chamlagu**, *Lam. Encycl.* i. p. 616; *DC. Prodr.* ii. p. 268; *Maxim. Fl. As. Or. Fragm.* p. 8.

Robinia Chamlagu, *L'Hér. Stirp. Nov.* t. 77.

Berberis caraganæfolia, *DC. Syst.* ii. p. 18.

Robinia chinensis, *Pers. Syn. Pl.* ii. p. 312.

Caragana chinensis, *Turcz. ex Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 470.

CHINA: without locality (*Fortune*, 42!); CHIHLI: Peking (*Carles*!); SHANTUNG (*Staunton*, spec. typ. *Berberidis caraganæfoliæ* in Mus. Brit.!); KIANGSU: Fengwangshan (*Forbes*!); KIANGSI: Kiukiang (*Shearer*!). Mus. Brit; Herb. Kew.

Japan.

Maximowicz, *loc. cit.*, refers a Kiukiang specimen collected by Shearer to the next species; but the Kew specimen from the same collector has the leaves of this.

2. **Caragana frutescens**, *DC. Prodr.* ii. p. 268; *Ledeb. Fl. Ross.* i. p. 569; *Maxim. Fl. As. Or. Fragm.* p. 8; *Franchet, Pl. David.* p. 83; *Turcz. in Bull. Soc. Nat. Mosc.* 1837, no. vii. p. 151, var. floribus roseis; *Hance in Journ. Bot.* 1875, p. 131; *Sweet, Fl. Gard.* t. 227.

Caragana rosea, *Turcz. ex Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 470.

CHIHLI: near Peking (*Bushell*! *Bretschneider*! *David*, 1790! *Hancock*!); KIANGSU: Chinkiang (*Maries*!); CHEKIANG: Ningpo (*Everard*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz* in litt.). Mus. Brit.; Herb. Kew.

Southern Russia eastward to Japan.

3. **Caragana microphylla**, *Lam. Encycl.* i. p. 615; *DC. Prodr.* ii. p. 268; *Hance in Journ. Bot.* 1875, p. 131; *Ledeb. Fl. Ross.* i. p. 568; *Turcz. in Bull. Soc. Nat. Mosc.* 1837, no. vii. p. 151; *Bunge, Enum. Pl. Chin. Nor.* p. 16 (varietates); *Franchet, Pl. David.* p. 83; *Maxim. Fl. As. Or. Fragm.* p. 8.

Caragana Altagana, *Poir. in Lam. Encycl., Suppl.* ii. p. 89; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 470.

CHIHLI: Peking (*Bretschneider*!); SHANTUNG: without locality (*Maingay*, 24!), Chefoo (*Hancock*!). Mus. Brit.; Herb. Kew.

Altai and Dahuria eastward.

1. **Gueldenstaedtia Delavayi**, *Franchet in Bull. Soc. Bot. France*, xxxii. p. 5.

YUNNAN: dry meadows at Mosoyun, near Lankong (*Delavay* ex *Franchet*).

2. **Gueldenstaedtia diversifolia**, *Maxim. in Mém. Biol.* xi. p. 209; *Kanitz, Bot. Result. Centr. As. Exped. Bel. Szech.*, reprint, p. 10.

WESTERN CHINA: upper part of the Hoangho (*Przewalski* ex *Maximowicz*); KANSUH (*Loczky* ex *Kanitz*).

3. **Gueldenstaedtia Guilloni**, *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 210.

SHANTUNG: Chefoo (*Guillon* ex *Franchet*).

We have not seen this species; but, from Franchet's own showing, it must be very near *G. maritima*.

4. **Gueldenstaedtia maritima**, *Maxim. Fl. As. Or. Fragm.* p. 7.

SHANTUNG: Chefoo (*Hancock* ex *Maximowicz*).

5. **Gueldenstaedtia multiflora**, *Bunge, Enum. Pl. Chin. Bor.* p. 18; *Walp. Rep.* i. p. 684; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 118; *Franchet, Pl. David.* p. 92, cum *β. longiscapa*.

CHIHLI: Peking (*Bunge*! *Tatarinow*! *Williams*! *Bushell*!); SHANTUNG: Chefoo (*Hancock*!); HUPEH: Ichang (*A. Henry*?); SHENSI (*David* ex *Franchet*). Mus. Brit.; Herb. Kew.

Himalaya Mountains.

Dr. Henry's Ichang specimens are almost glabrous, and of a somewhat different aspect, and perhaps not the same species.

6. **Gueldenstaedtia stenophylla**, *Bunge, Enum. Pl. Chin. Bor.* p. 18; *Walp. Rep.* i. p. 684; *Debeaux, Fl. Tchéf.* p. 45.

CHIHLI: Peking (*Bunge*! *Bullock*!); SHANTUNG: Chefoo (ex *Debeaux*). Herb. Kew.

1. **Astragalus adsurgens**, *Pall. Sp. Astrag.* p. 40, t. 31; *DC. Prodr.* ii. p. 287; *Bunge, Astrag. Sp. Geront.* pars altera, p. 184. n. 722; *Franchet, Pl. David.* p. 88.

N.E. CHINA: Moukden to Kirin (*James*!); CHIHLI: on the banks of the Peiho (*Mœllendorff*!); Jehol (*David*, 1942, ex

*Franchet*), near Peking (ex *Bunge*). Mus. Brit.; Herb. Kew.

Eastern Siberia to Japan.

2. **Astragalus capillipes,** *Fisch. ex Bunge, Astrag. Sp. Geront.* pars altera, p. 21. n. 92; *Franchet, Pl. David.* p. 85.

CHIHLI: between Peking and Lunzuanssy (*Tatarinow*!). Herb. Kew.

3. **Astragalus chinensis,** *Linn. f. Dec. Pl. Rar.* i. t. 3; *DC. Prodr.* ii. p. 294; *Bunge, Astrag. Sp. Geront.* pars altera, p. 32. n. 147; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 381.

N.E. CHINA: Moukden to Kirin (*James*!); SHINGKING: west of Chienshan (*Ross*!). Herb. Kew.

Mandshuria.

4. **Astragalus chrysopterus,** *Bunge in Mél. Biol.* x. p. 51.

KANSUH (*Przewalski* ex *Bunge*).

5. **Astragalus complanatus,** *R. Br. ex Bunge, Astrag. Sp. Geront.* pars altera, p. 1. n. 1; *Franchet, Pl. David.* p. 84.

Phyllolobium chinense, *Fisch. in Spreng. Nov. Prov. Hort. Hal. et Berol.* p. 33; *DC. Prodr.* ii. p. 521.

CHIHLI (*Staunton*! *Tatarinow*!). Mus. Brit.; Herb Kew.

6. **Astragalus dahuricus,** *DC. Prodr.* ii. p. 285; *Bunge, Astrag. Sp. Geront.* pars altera, p. 3; *Ledeb. Ic. Fl. Ross.* t. 318; *Franchet, Pl. David.* p. 86.

N.E. CHINA: Moukden to Kirin (*James*!); CHIHLI: Peking mountains (*David*, 584, ex *Franchet*); SHANTUNG (*Maingay*!). Herb. Kew.

Dahuria and Mongolia.

7. **Astragalus dependens,** *Bunge, in Mél. Biol.* x. p. 640.

KANSUH (*Piasezki* ex *Bunge*).

8. **Astragalus glanduliferus,** *Debeaux, Fl. Tients.* p. 16.

CHIHLI: Tientsin (ex *Debeaux*).

9. **Astragalus Hancockii,** *Bunge in Mél. Biol.* x. p. 640.

CHIHLI: Siaowutaishan (*Hancock* et *Mœllendorff* ex *Bunge*).

10. **Astragalus Laxmanni,** *Jacq. Hort. Vindob.* iii. t. 37; *Pall. Astrag.* p. 38. n. 43, t. 30; *Bunge, Astrag. Sp. Geront.* pars altera, p. 84. n. 344; *Hance in Journ. Bot.* 1883, p. 297.

KANSUH: Hami (*Mesny* ex *Hance*). Mus. Brit.
Eastern Siberia and Mandshuria.

11. **Astragalus melilotoides,** *Pall. Astrag.* p. 51. n. 54, t. 41; *DC. Prodr.* ii. p. 284; *Bunge, Astrag. Sp. Geront.* p. 21. n. 93.

CHIHLI: near Peking (*Tatarinow*! *Bretschneider*!). Herb. Kew.

Eastern Siberia, Mongolia.

12. **Astragalus Mœllendorffii,** *Bunge in Mél. Biol.* x. p. 641.

CHIHLI: Siaowutaishan, 3600 to 5000 feet (*Mœllendorff* ex *Bunge*).

13. **Astragalus monadelphus,** *Bunge in Mél. Biol.* x. p. 52.

KANSUH: without locality (*Przewalski* ex *Bunge*).

14. **Astragalus Przewalskii,** *Bunge in Mél. Biol.* x. p. 52.

KANSUH: without locality (*Przewalski* ex *Bunge*).

15. **Astragalus scaberrimus,** *Bunge, Enum. Pl. Chin. Bor.* p. 17, et *Astrag. Sp. Geront.* pars altera, p. 197. n. 790; *Walp. Rep.* i. p. 710; *Maxim. Fl. As. Or. Fragm.* p. 9.

CHIHLI: near Peking (*Bunge*! *Tatarinow*! *Bretschneider*! *Hancock*!).

Eastern Siberia, Mongolia.

16. **Astragalus sciadophorus,** *Franchet, Pl. David.* p. 84.

CHIHLI: Jehol (*David* ex *Franchet*).

17. **Astragalus sinicus,** *Linn. Mant.* p. 103; *Bunge, Astrag. Sp. Geront.* pars altera, p. 2. n. 10; *Kurz in Journ. Bot.* 1873, p. 193; *Debeaux, Fl. Shangh.* p. 27; *Bot. Mag.* t. 1350.

Astragalus lotoides, *Lam. Encycl.* i. p. 316; *DC. Prodr.* ii. p. 282.

KIANGSU: Shanghai (*Maingay*! *Wykeham Perry*!); CHEKIANG: Ningpo (*Everard*! *Oldham*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Fortune*, 82 A!); FORMOSA (*Oldham*! *Swinhoe*!); HUPEH: Ichang (*A. Henry*!); YUNNAN (*Anderson* ex *Kurz*); KWANGTUNG: Macao (*Calléry* ex *Bunge*); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan.

18. **Astragalus skythropos,** *Bunge in Mél. Biol.* x. p. 51;

*Kanitz, Bot. Result. Centr. As. Exped. Bel. Szech.*, reprint, p. 10.

KANSUH: without locality (*Przewalski* ex *Bunge*).

19. **Astragalus tartaricus,** *Franchet, Pl. David.* p. 87.
CHIHLI: Jehol (*David*, 2151, ex *Franchet*).

20. **Astragalus tenuis,** *Turcz. Fl. Baic.-Dahur.* i. p. 324; *Bunge, Astrag. Sp. Geront.* pars altera, p. 21. n. 29; *Franchet, Pl. David.* pp. 85 et 86, cum var. *scoparia.*

Indigofera melilotoides, *Hance in Journ. Bot.* 1869, p. 163.

CHIHLI: near Peking (*Bushell*! *Williams* in hb. *Hance*, 12469!), Jehol (*David*, 2067, ex *Franchet*). Mus. Brit.; Herb. Kew.

Dahuria, Mongolia.

21. **Astragalus variabilis,** *Bunge, Bull. Acad. Pétersb.* xxiv. 1878, p. 33; *Kanitz in Math. und Naturw. Ber. Ungarn.*, reprint, p. 9.

KANSUH (*Loczy* ex *Kanitz*).

Kanitz, *loc. cit.*, indicates a new species of *Astragalus*, which he does not describe; hence the name is not taken up here.

[*Phaca trifoliata*, Linn. Mant. p. 270; DC. Prodr. ii. p. 275, is an obscure plant; and *P. villosa*, Nutt., seems to have been erroneously recorded from China in the same work, p. 274.]

1. **Oxytropis icolor,** *Bunge, Enum. Pl. Chin. Bor.* p. 17; *Walp. Rep.* i. p. 690.
CHIHLI: near Peking (*Bunge*! *David*, hb. *Hance*, 15611!). Mus. Brit.; Herb. Kew.

2. **Oxytropis hirta,** *Bunge, Enum. Pl. Chin. Bor.* p. 17; *Walp. Rep.* i. p. 692.
CHIHLI: near Peking (*Bunge*! *Tatarinow*! *Hancock*!); SHING-KING: Talienhwan (*Swinhoe*, hb. *Hance*, 6501!). Mus. Brit.; Herb. Kew.

Mongolia.

3. **Oxytropis Mœllendorffii,** *Bunge in Mél. Biol.* x. p. 637.
CHIHLI: Siaowutaishan at 7500 to 9000 feet (*Mœllendorff* ex *Bunge*).

4. **Oxytropis oxyphylla,** *DC.? Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 470.

CHIHLI: near Peking (ex *Maximowicz*).

*O. oxyphylla*, DC. (Prodr. ii. p. 279), inhabits Dahuria and Siberia.

5. **Oxytropis psammocharis,** *Hance in Journ. Linn. Soc.* xiii. p. 78.

CHIHLI: Nankau Pass (*Williams*, hb. *Hance*, 14685!). Mus. Brit.

6. **Oxytropis subfalcata,** *Hance in Journ. Linn. Soc.* xiii. p. 78; *Franchet, Pl. David.* p. 88.

CHIHLI: Peking district (*Williams*, hb. *Hance*, 14889!); Pohuashan (*David*, 2294, ex *Franchet*). Mus. Brit.

7. **Oxytropis uratensis,** *Franchet, Pl. David.* p. 91.

CHIHLI: near Peking (*David*, 2355, ex *Franchet*).

1. **Glycyrrhiza asperrima,** *Linn. f. Suppl.* p. 330; *DC. Prodr.* ii. p. 248; *Hance in Journ. Bot.* 1883, p. 297; *Boiss. Fl. Or.* ii. p. 202.

KANSUH: Hami (*Mesny*, hb. *Hance*, 22127!). Mus. Brit.

South-eastern Russia to Persia, Afghanistan, and Siberia.

2. **Glycyrrhiza echinata,** *Linn. Sp. Pl.* i. p. 741; *Lour. Fl. Cochinch.* p. 445; *DC. Prodr.* ii. p. 248; *Boiss. Fl. Or.* ii. p. 203; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 210.

SHANTUNG: without locality (*Maingay*, 29!), Chefoo (*Fauvel* ex *Franchet*). Herb. Kew.

Southern Europe eastward to Persia, but not recorded from Siberia.

3. **Glycyrrhiza glabra,** *Linn. Sp. Pl.* ed. i. p. 742; *DC. Prodr.* ii. p. 247; *Lour. Fl. Cochinch.* p. 446; *Bretsch. Early Res.* p. 145.

"Agrestis cultaque in variis locis imperii Chinensis" (*Loureiro*).

South of Europe and North Africa to Afghanistan, Turkestan, and Songaria.

4. **Glycyrrhiza glandulifera,** *Waldst. et Kit. Pl. Hung.* i. p. 20, t. 21; *DC. Prodr.* ii. p. 247; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 470; *Boiss. Fl. Or.* ii. p. 202.

CHIHLI: Peking (ex *Maximowicz*).

South-eastern Europe to Afghanistan and Turkestan.

Boissier treats this as a variety of *G. glabra*, which extends westward to Portugal.

5. **Glycyrrhiza pallidiflora,** *Maxim. Prim. Fl. Amur.* p. 79.

SHINGKING: Peiling (*Webster*!); SHANTUNG: Chefoo (*Stuhlmann*, hb. *Hance*, 17912!). Mus. Brit.; Herb. Kew.

Amurland.

6. **Glycyrrhiza uralensis,** *Fisch. in DC. Prodr.* ii. p. 248; *Hance in Journ. Bot.* 1883, p. 297; *Franchet, Pl. David.* p. 92.

CHIHLI: plains (*David* ex *Franchet*).

Siberia.

1. **Hedysarum brachypterum,** *Bunge, Enum. Pl. Chin. Bor.* p. 18; *Walp. Rep.* i. p. 745; *Franchet, Pl. David.* p. 93.

CHIHLI: near Zsimini and Swanchuafu (*Bunge*!). Herb. Kew.

Mongolia.

2. **Hedysarum esculentum,** *Ledeb. in Denkschr. Bot. Gesellsch. Regensb.* iii. p. 112; *Fl. Ross.* i. p. 707.

CHINA? (*Wykeham Perry*!). Herb. Kew.

Eastern Siberia; Mandshuria; Japan.

3. **Hedysarum multijugum,** *Maxim. in Mél. Biol.* xi. p. 212.

KANSUH: western alpine region (*Przewalsky* ex *Maximowicz*).

4. **Hedysarum obscurum,** *Linn. Sp. Pl.* ed. 2, p. 1057; *DC. Prodr.* ii. p. 343; *Ledeb. Fl. Ross.* i. p. 706.

CHIHLI: Siaowutaishan (*Hancock* ex *Maximowicz MSS.*).

South of Europe eastward through Siberia to Sachalin.

5. **Hedysarum,** sp. nov.?

WESTERN CHINA: Ramala Mountains (*Gill*!). Mus. Brit.

A very distinct plant; but the specimen consists of a branch bearing one spike of flowers; hence we are not certain that it belongs to this genus.

In the Kew Herbarium is a flowering specimen of a probable species of this genus, different from any of the foregoing, collected by Bushell near Peking.

1. **Ormocarpum sennoides,** *DC. Prodr.* ii. p. 315; *Wight, Ic. Pl. Ind. Or.* t. 297; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 152.

Diphaca cochinchinensis, *Lour. Fl. Cochinch.* p. 454.

CHINA: cult. (ex *Loureiro*); LUCHU ARCHIPELAGO (*Wright*!). Herb. Kew.

Tropical Asia, Africa, Polynesia, and Australia.

1. **Æschynomene indica,** *Linn. Sp. Pl.* ed. 1, p. 713; *DC. Prodr.* ii. p. 320; *Benth. Fl. Hongk.* p. 79; *Miq. Journ. Bot. Néerl.* i. p. 122; *Franchet, Pl. David.* p. 97, et *in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 211.

SHANTUNG: Chefoo (*Forbes*!), without locality (*Staunton*! *Maingay*!); KIANGSI: Kiukiang (*Shearer*! *David,* 785!); FORMOSA (*Oldham*!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Macao (*Calléry*!), Pakhoi (*Playfair*!); HONGKONG (*Champion Hance,* 236!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and Australia.

1. **Smithia conferta,** *Sm. in Rees's Cyclop.* xxxiii.; *DC. Prodr.* ii. p. 323; *Hance in Journ. Bot.* xiii. p. 102.

KWANGTUNG: Kowlung (*Sampson*!). Mus. Brit.; Herb. Kew.

Tropical Asia and North-east Australia.

Baker (in Hook. f. Fl. Brit. Ind. ii. p. 149) treats this as a variety of *S. geminiflora,* Roth.

2. **Smithia salsuginea,** *Hance, in Journ. Bot.* 1869, p. 164, et *in Journ. Linn. Soc.* xiii. p. 102; *Maxim. in Mél. Biol.* ix. p. 58.

Smithia dichotoma, *Dalz. MSS. ex Baker in Hook. f. Fl. Brit. Ind.* ii. p. 150.

KWANGTUNG: Kowlung, opposite Hongkong (*Sampson*!). Mus. Brit.; Herb. Kew.

Western Peninsula of India.

3. **Smithia sensitiva,** *Ait. Hort. Kew.* ed. 1, iii. p. 496, t. 13; *DC. Prodr.* ii. p. 323; *Hance in Journ. Bot.* 1878, p. 226; *Maxim. in Mél. Biol.* ix. p. 58.

KWANGTUNG: around Canton (*Hance,* 5523! *Sampson*!); FORMOSA (*Oldham,* 173!). Mus. Brit.; Herb. Kew.

Tropical Asia and Africa.

1. **Geissaspis cristata,** *Wight et Arn. Prod. Fl. Penins. Ind. Or.* i. p. 218; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 141; *Hance in Journ. Linn. Soc.* xiii. p. 102.

KWANGTUNG: Kowlung (*Sampson*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia.

[*Arachis hypogæa*, Linn. (syn. *A. asiatica*, Lour. Fl. Cochinch. p. 430), a South-American plant, is cultivated in China, as in most warm countries.]

1. **Zornia diphylla,** *Pers. Syn. Pl.* ii. p. 318; *Vogel in Nov. Act. Nat. Cur.* xix. *Suppl.* i. p. 19; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 147; *Benth. Fl. Hongk.* p. 80; *Maxim. in Mél. Biol.* xii. p. 436.

Zornia angustifolia, *Smith in Rees's Cyclop.*; *DC. Prodr.* ii. p. 316.

Hedysarum diphyllum, *Linn. Sp. Pl.* ed. i. p. 747; *Lour. Fl. Cochinch.* p. 449.

FOKIEN: Amoy (*Fortune*, 96!); KWANGTUNG: Macao (*Vachell*!), Pakhoi (*Playfair*!); HONGKONG (*Wilford*! *Champion*! *Wright*!); KWANGSI (*Wenyon*!). Mus. Brit.; Herb. Kew.

Diffused throughout the tropics.

1. **Desmodium Cephalotes,** *Wall. Cat.* 5721; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 161; *Hance in Journ. Bot.* 1880, p. 260 *Maxim. in Mél. Biol.* xii. p. 438; *Wight, Ic. Pl. Ind. Or.* t. 373.

Dendrolobium Cephalotes, *Benth. Pl. Jungh.* i. p. 218.

KWANGTUNG: banks of the West river (*Sampson*!). Mus. Brit.; Herb. Kew.

Common and widely spread in tropical Asia.

2. **Desmodium elegans,** *Benth. Fl. Hongk.* p. 83; *Maxim. in Mél. Biol.* xii. p. 439.

Dicerma elegans, *DC. Prodr.* ii. p. 339.

Phyllodium elegans, *Desv.* ex *Benth. Pl. Jungh.* i. p. 217.

Zornia elegans, *Pers. Syn. Pl.* ii. p. 318.

Hedysarum elegans, *Lour. Fl. Cochinch.* p. 450.

SOUTH CHINA: without locality (*Parkes*! *Millett*!); KWANGTUNG: Whampoa (*Hance*!), Lofaushan (*Ford*!); HONGKONG (*Wright*! *Champion*!); HAINAN: between Hoihow and Kiung-

chow (*Hancock*! *Lamont*! *Forbes*!). Mus. Brit.; Herb. Kew.

Cochin China; Java; Philippines.

3. **Desmodium floribundum**, *G. Don, Gen. Syst.* ii. p. 297; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 167.

Desmodium multiflorum, *DC. Prodr.* ii. p. 335.

Desmodium dubium, *Lindl. Bot. Reg.* t. 967; *Bot. Mag.* t. 2960, *fide Baker.*

HUPEH: Patung (*A. Henry*!). Herb. Kew.

India, from the Punjab to Khasia, ascending to 7000 feet.

The Chinese plant is a very fine variety with blue flowers, and the strongly veined under surface of the leaflets is pubescent.

4. **Desmodium formosum**, *Vogel in Nov. Act. Nat. Cur.* xix. (1843), *Suppl.* i. p. 29; *Walp. Rep.* i. p. 740.

KWANGTUNG: meadows around Macao (*Meyer* ex *Vogel*).

The description of this species does not accord with any *Desmodium* we have seen from China.

5. **Desmodium gangeticum**, *DC. Prodr.* ii. p. 327; *Benth. Fl. Hongk.* p. 84; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 168; *Maxim. in Mél. Biol.* xii. p. 443; *Wight, Ic. Pl. Ind. Or.* t. 271.

Hedysarum gangeticum, *Linn. Sp. Pl.* ed. 1, p. 746; *Lour. Fl. Cochinch.* p. 448.

SOUTH CHINA: without locality (*Millett*!); KWANGTUNG: near Canton (ex *Loureiro*); HONGKONG (*Hance*! *Lamont*!). Mus. Brit.; Herb. Kew.

Widely diffused in tropical Asia and Africa, and colonized in the West Indies. It is singularly variable in foliage.

6. **Desmodium Gardneri**, *Benth. Pl. Jungh.* i. p. 226; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 165; *Maxim. in Mél. Biol.* xii. p. 441.

Desmodium podocarpum, *Miq. Ann. Mus. Bot. Lugd.-Bat.* iii. p. 46, non *DC.*, fide *Baker, loc. cit.*

FORMOSA: Tamsui (*Oldham*, 159, 160!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Lofaushan (*Ford*!). Mus. Brit.; Herb. Kew.

Western Peninsula of India, Ceylon, and Japan.

Most of the Chinese specimens are young, and doubtfully referred to this species.

7. **Desmodium gyroides**, *DC. Prodr.* ii. p. 326; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 175; *Maxim. in Mél. Biol.* xii. p. 438.

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

Widely spread in India and Malaya.

8. **Desmodium heterophyllum**, *DC. Prodr.* ii. p. 334; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 173; *Maxim. in Mél. Biol.* xii. p. 445.

FORMOSA: Tamsui (*Oldham*, 162!); KWANGTUNG: Pakhoi (*Playfair*!). Mus. Brit.; Herb. Kew.

Tropical Asia generally and the Mascarene Islands.

9. **Desmodium laburnifolium**, *DC. Prodr.* ii. p. 337; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 163; *S. Moore in Journ. Bot.* 1875, p. 230; *Hance in Journ. Bot.* 1878, p. 9; *Maxim. in Mél. Biol.* xii. p. 439.

Catenaria laburnifolia, *Benth. Pl. Jungh.* i. p. 220.

KIANGSU: Shanghai (*Carles*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 168!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: North river (*Hance*, 13758!). Mus. Brit.; Herb. Kew.

Throughout tropical India and Malaya.

10. **Desmodium latifolium**, *DC. Prodr.* ii. p. 328; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 168; *Wight, Ic. Pl. Ind. Or.* p. 270.

Hedysarum latifolium, *Roxb. Hort. Beng.* p. 57; *Bot. Reg.* x. t. 355.

CHINA: without locality (*Staunton* ex *Bot. Reg.*).

Widely spread in tropical Africa and Asia, eastward to the Philippine Islands; but we have seen no Chinese specimen, though from the distribution of the species there is no reason why it should not occur in the southern provinces. The plant figured in the 'Botanical Register' is recorded as having been raised from seeds brought by Staunton from China.

11. **Desmodium laxiflorum**, *DC. in Ann. Sc. Nat.* iv. 1825, p. 100, et *in Prodr.* ii. p. 335; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 164; *Maxim. in Mél. Biol.* xii. p. 440.

FORMOSA: Tamsui (*Oldham*, 161!). Herb. Kew.

India, Malaya, and the Philippines.

12. **Desmodium lutescens,** *DC. Prodr.* ii. p. 326.

Hedysarum lutescens, *Poir. in Lam. Encycl.* vi. p. 417.

Zornia lutescens, *Steud. Nomencl. Bot.*, ed. 2. ii. p. 900.

CHINA (ex *Poiret*).

Poiret gives a full description of this species; yet we have not succeeded in identifying it with any that we have seen. De Candolle ascribes the name under *Desmodium* to Desvaux; but it is not mentioned by the latter in the place cited by the former.

13. **Desmodium oblatum,** *Baker in Journ. Asiat. Soc. Beng.* xlii. 2, p. 230, et *in Hook. f. Fl. Brit. Ind.* ii. p. 166.

SOUTH-WEST CHINA (*Bourne*!). Herb. Kew.

Birma, Malacca.

14. **Desmodium Oldhami,** *Oliv. in Journ. Linn. Soc.* ix. p. 165; *Hance in Journ. Bot.* 1874, p. 259; *Maxim. in Mél. Biol.* xii. p. 442.

N.E. CHINA: Moukden to Kirin (*James*!); KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

Japan.

15. **Desmodium parvifolium,** *DC. in Ann. Sc. Nat.* iv. 1825, p. 100, et *in Prodr.* ii. p. 334; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 174; *Miq. Journ. de Bot. Néerl.* i. p. 122; *Benth. Fl. Hongk.* p. 84.

Desmodium microphyllum, *DC. Prodr.* ii. p. 337; *Maxim. in Mél. Biol.* xii. p. 445; *Franchet, Pl. David.* p. 94.

KIANGSI: Kiukiang (*David,* 895); FOKIEN: Amoy (*Fortune,* 118! *Swinhoe*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Widely spread in India and Malaya, and extending eastward to Japan.

16. **Desmodium podocarpum,** *DC. in Ann. Sc. Nat.* iv. 1825, p. 102, et *Prodr.* ii. p. 336; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 165; *Maxim. in Mél. Biol.* xii. p. 440, *non Hook. et Arn.*

N.E. CHINA: Moukden to Kirin (*James*!); KIANGSU: Shanghai (*Maingay*! *Tonnerre*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Lofaushan (*Ford*!); COREA: Gensan (*Perry*!)! LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

North India, Mandshuria, and Japan.

An exceedingly variable species, of which Maximowicz defines three varieties, whose extreme forms are very different from each other in foliage. We have not critically examined the specimens indicated above; but most of them want fruit. Franchet (Pl. David. p. 94) records *D. japonicum*, Miq., a variety of this, according to Maximowicz's view, from the Lychan Mountains in Kiangsi.

17. **Desmodium polycarpum**, *DC. Prodr.* ii. p. 334; *Hook. et Arn. Bot. Beech. Voy.* p. 180; *Benth. Fl. Hongk.* p. 84; *Miq. in Journ. Bot. Néerl.* i. p. 122; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 171; *Maxim. in Mél. Biol.* xii. p. 433; *Wight, Ic. Pl. Ind. Or.* t. 406.

Desmodium purpureum, *Hook. et Arn. Bot. Beech. Voy.* p. 62.

Desmodium nervosum, *Vogel in Nov. Act. Nat. Cur.* xix. *Suppl.* i. p. 28; *Walp. Rep.* i. p. 739.

Desmodium heterocarpum, *DC. Prodr.* ii. p. 337.

Desmodium Buergeri, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 45.

South China: without locality (*Millett*!); Formosa: Tamsui (*Oldham*, 163!); Hupeh: Ichang (*A. Henry*!); Kwangtung: Whampoa (*Robertson*!); Hongkong (*Wright*! *Champion*!). Mus. Brit.; Herb. Kew.

Tropical Asia; Polynesia; Zanzibar; Japan.

Var. **trichocaulon**, *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 172; *Maxim. in Mél. Biol.* xii. p. 444; *DC. Prodr.* ii. p. 335 (species); *Hance in Journ. Bot.* 1880, p. 260.

Fokien: Amoy (*Swinhoe*!); Kwangtung: Saichushan (*Parry* ex *Hance*). Mus. Brit.; Herb. Kew.

Widely spread in India.

18. **Desmodium pulchellum**, *Benth. Fl. Hongk.* p. 83; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 162; *Maxim. in Mél. Biol.* xii. p. 438.

Dicerma pulchellum, *DC. Prodr.* ii. p. 339; *Wight, Ic. Pl. Ind. Or.* t. 418.

Phyllodium pulchellum, *Desv. Journ. de Bot.* iii. p. 123, t. 5. fig. 24.

Hedysarum pulchellum, *Linn. Sp. Pl.* ed. 1, p. 747; *Lour. Fl. Cochinch.* p. 449.

China: without locality (*Millett*! *Parkes*! *Fortune*, 15!); Fokien: Amoy (*Swinhoe*!); Formosa: Tamsui (*Oldham*, 164!); Kwangtung: Swatow (*Phillips*!), Macao (*Tate*!), Pakhoi (*Play-*

*fair*!); Whampoa (*Hance*!); HONGKONG (*Champion*! *Wright*! *Urquhart*! *Wilford*! *Hance*!). Mus. Brit.; Herb. Kew.

Tropical Asia and the Philippine Islands.

19. **Desmodium reticulatum**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 46; *Benth. Fl. Hongk.* p. 84; *Miq. Journ. Bot. Néerl.* i. p. 122; *Maxim. in Mél. Biol.* xii. p. 444; *Hance in Journ. Bot.* 1879, p. 10 (forma foliis omnibus unifoliolatis).

SOUTH CHINA: without locality (*Parkes*!); KWANGTUNG: Macao (*Gomez da Silva* ex *Henriques*), Whampoa (*Hance*!); Pakhoi (*Playfair*?); HONGKONG (*Champion*! *Wright*!); HAINAN (*Bullock*!). Mus. Brit.; Herb. Kew.

There is a little doubt about Playfair's Pakhoi specimen belonging to the unifoliolate form of this species, as the material is insufficient to decide the question.

20. **Desmodium retroflexum**, *DC. Prodr.* ii. p. 336; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 170; *Hance in Journ. Bot.* 1880, p. 260; *Maxim. in Mél. Biol.* xii. p. 443.

KWANGTUNG: hills around Whampoa (*Krone*! *Hance*, 3883!). Mus. Brit.; Herb. Kew.

Himalayas to Tenasserim.

21. **Desmodium rufescens**, *DC. Prodr.* ii. p. 335; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 171; *Kanitz in Math. und Natur. Ber. Ungarn*, reprint, p. 12.

SZECHUEN (*Loczy* ex *Kanitz*).

Ceylon and the Nilghiris.

22. **Desmodium triflorum**, *DC. Prodr.* ii. p. 334; *Benth. Fl. Hongk.* p. 83; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 173; *Maxim. in Mél. Biol.* xii. p. 444.

Hedysarum triflorum, *Linn. Sp. Pl.* ed. i. p. 749; *Lour. Fl. Cochinch.* p. 450; *Retzius, Observ.* iv. p. 29.

KWANGTUNG: Pakhoi (*Playfair*!), Macao (*Tate*!); HONGKONG (*Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

Almost throughout the tropics.

23. **Desmodium triquetrum**, *DC. Prodr.* ii. p. 326; *Benth. Fl. Hongk.* p. 83; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 163; *Maxim. in Mél. Biol.* xii. p. 439; *Miq. Journ. de Bot. Néerl.* i. p. 122.

Pteroloma triquetrum, *Benth. in Pl. Jungh.* i. p. 220.

Desmodium acrocarpum, *Hance in Hook. Lond. Journ.* vii. p. 473; *Walp. Ann.* ii. p. 414.

SOUTH CHINA: without locality (*Millett*! *Parkes*!); KWANGTUNG: Macao (*Tate*!), Lofaushan (*Ford*!); HONGKONG (*Hinds*! *Urquhart*! *Wright*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Mascarene Islands, and Philippines.

24. **Desmodium umbellatum**, *DC. Prodr.* ii. p. 325; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 161; *Maxim. in Mél. Biol.* xii. p. 438.

Hedysarum umbellatum, *Linn. Sp. Pl.* ed. 1, p. 747; *Jacq. Hort. Schœnb.* t. 297.

Dendrolobium umbellatum, *Benth. Pl. Jungh.* i. p. 218.

LUCHU ARCHIPELAGO (*Tashiro* ex *Maximowicz*).

Tropical Asia, Polynesia, and Mascarene Islands.

25. **Desmodium viride**, *Vogel in Nov. Act. Nat. Cur.* xix. *Suppl.* i. p. 29; *Walp. Rep.* i. p. 739.

KWANGTUNG: meadows around Macao (*Meyen*).

1. **Pycnospora hedysaroides**, *R. Br.* ex *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* i. p. 197; *Benth. Fl. Hongk.* p. 91; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 153.

Pycnospora nervosa, *Wight et Arn. loc. cit.*

SOUTH CHINA: without locality (*Millett*!); FORMOSA: Tamsui (*Oldham*, 169!); HONGKONG (*Champion*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Australia, and the Philippines.

1. **Uraria crinita**, *Desv. Journ. de Bot.* iii. p. 122, t. 5; *DC. Prodr.* ii. p. 324; *Benth. Fl. Hongk.* p. 81.

Uraria comosa, *DC. loc. cit.*

Uraria crinita, var. macrostachya, *Wall. Pl. As. Rar.* ii. p. 8, t. 110; *Benth. in Hook. Kew Journ. Bot.* iv. 1852, p. 45.

SOUTH CHINA: without locality (*Parkes*! *Fortune*! *Millett*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Tate*! *Lamont*! *Forbes*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia.

2. **Uraria hamosa**, *Wall. Cat.* 5681 B; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 156, var. **sinensis**, *Hemsl.*, foliolis obovato-rotundatis, racemis laxioribus, pedicellis longioribus divaricatis.

HUPEH: Ichang (*A. Henry* !). Herb. Kew.

The typical plant is common in India and extends to the Malay Archipelago.

3. **Uraria lagopoides**, *DC. Prodr.* ii. p. 324; *Hance in Journ. Bot.* 1878, p. 226; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 156.

Hedysarum lagopodioides, *Linn. Sp. Pl.* ed. 1, p. 1198; *Burm. Fl. Ind.* p. 168, t. 53; *Lour. Fl. Cochinch.* p. 450.

FOKIEN (*de Grijs* !); KWANGTUNG (ex *Loureiro*). Mus. Brit.; Herb. Kew.

Tropical Asia, Australia, and Polynesia.

4. **Uraria picta**, *Desv. Journ. de Bot.* iii. p. 122; *DC. Prodr.* ii. p. 324; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 155; *Vogel in Nov. Act. Nat. Cur.* xix. *Suppl.* i. p. 26.

Hedysarum pictum, *Jacq. Ic. Pl. Rar.* t. 567.

KWANGTUNG: Cape Lyngmoon (*Meyen* ex *Vogel*); KWANGSI (*Wenyon* !). Herb. Kew.

Tropical Africa and Asia, eastward to the Philippine Islands, and in Australia.

1. **Lourea obcordata**, *Desv. Journ. de Bot.* iii. p. 122; *DC. Prodr.* ii. p. 324; *Benth. Fl. Hongk.* p. 82.

Hedysarum reniforme, *Lour. Fl. Cochinch.* p. 447, excl. syn. ex *DC.*

Lourea reniformis, *DC. Prodr.* ii. p. 324.

CHINA: without locality (*Millett* !); KIANGSU: Shanghai (*Maingay* !); FOKIEN: Amoy (*Hance*, 643 !); FORMOSA (*Oldham*, 175 !); KWANGTUNG: ramparts of Canton (*Maingay* !); HONGKONG (*Wright* ! *Champion* !); HAINAN (*Swinhoe* !). Mus. Brit.; Herb. Kew.

Birma, Malaya, tropical Australia, and the Philippines.

2. **Lourea vespertilionis**, *Desv. Journ. de Bot.* iii. p. 122; *DC. Prodr.* ii. p. 323; *Hook. & Arn. Bot. Beech. Voy.* p. 180.

Hedysarum vespertilionis, *Linn.*; *Jacq. Ic. Pl. Rar.* t. 566.

CHINA: without locality (*Beechey* ex *Hooker & Arnott*).

Tropics of both hemispheres, yet uncertain where it is really indigenous.

1. **Alysicarpus bupleurifolius**, *DC. Prodr.* ii. p. 352; *Benth. Fl. Hongk.* p. 81; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 168.

HONGKONG (*Wright* ! *Lamont* !). Mus. Brit.; Herb. Kew.

Tropical Asia, Mascarene Islands, and Polynesia.

2. **Alysicarpus rugosus,** *DC. Prodr.* ii. p. 353; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 159.

SOUTH CHINA (*Ford?*). Herb. Kew.

Ford's is an imperfect specimen, doubtingly referred to this species, which is widely spread in the tropics of the Old World, occurring also at the Cape of Good Hope and in the West Indies.

3. **Alysicarpus vaginalis,** *DC. Prodr.* ii. p. 353; *Benth. Fl. Hongk.* p. 80; *Miq. in Journ. Bot. Néerl.* i. p. 122; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 158.

Alysicarpus nummulariæfolius, *DC. Prodr.* ii. p. 353.

CHINA: without locality (*Millett!* *Staunton!*); KWANGTUNG: Pakhoi (*Playfair!*); HONGKONG (*Wright!*). Mus. Brit.; Herb. Kew.

Throughout the tropics of the Old World and colonized in America.

1. **Lespedeza bicolor,** *Turcz. in Bull. Soc. Bot. Mosc.* 1840, p. 69; *Rupr. Dec. Pl. Amur.* t. 5; *Maxim. in Acta Horti Petrop.* ii. p. 355 (varietates α. typica, β. intermedia, et γ. Sieboldi); *Franchet, Pl. David.* p. 95; *Debeaux, Fl. Tchef.* p. 45.

Lespedeza Sieboldi, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 47.

CHINA: without locality (*Mulgrave!*); N.E. CHINA: Moukden to Kirin (*James!*); CHIHLI: district of Peking (*Skatchkoff! Tatarinow!*), Pohuashan (*Bretschneider!*); SHANTUNG: Chefoo (*Maingay!*); CHEKIANG (*Staunton!*); KIANGSU: Kiangnan (*Staunton!*); KIANGSI: Kiukiang (*Shearer!*); HUPEH: Ichang (*A. Henry!*); COREA: Chemulpo (*Carles!*), Port Chusan (*Wilford!*); COREAN ARCHIPELAGO (*Oldham*, 339!). Mus. Brit.; Herb. Kew.

Japan and Mandshuria, a common species.

2. **Lespedeza Buergeri,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 47; *Maxim. in Acta Horti Petrop.* ii. p. 354.

Lespedeza Oldhami, *Miq. loc. cit.* p. 48.

COREAN ARCHIPELAGO or JAPAN (*Oldham*, 333, 335!). Herb. Kew.

Japan.

It is uncertain whether this species occurs within our limits.

3. **Lespedeza Caraganæ,** *Bunge, Descr. Gen. et Sp. Chin.* dec. i. p. 11; *Maxim. in Acta Horti Petrop.* ii. p. 46.

CHIHLI: mountains near Peking (ex *Bunge*).

This belongs to the group which includes the closely allied *L. juncea* and *L. sericea*, "sed omnium Lespedezorum maxime angustifolia et leguminis forma distincta videtur" (*Maximowicz*).

4. **Lespedeza chinensis,** *G. Don, Gen. Syst.* ii. p. 307, *excl. syn. Thunb., fide Maxim. in Acta Horti Petrop.* ii. p. 367; *Hook. et Arn. Bot. Beech. Voy.* p. 181.

CHINA: without locality (*Millett*!); FOKIEN: Amoy (*Hance*, 1429!); FORMOSA: Tamsui (*Oldham*, 185, 187!); KWANGTUNG: Macao (*Gaudichaud*!). Mus. Brit.; Herb. Kew.

There is a *Lespedeza* in the Kew Herbarium from Ichang (*A. Henry*, 2277) with broader, softly hairy leaflets, which may be a variety of *L. chinensis*, or an allied undescribed species.

5. **Lespedeza ciliata,** *Benth. in Hook. Kew Journ. Bot.* iv. p. 48, in nota; *Maxim. in Acta Horti Petrop.* ii. p. 351.

CHEKIANG: Chusan (*Fortune*, 42! *Jacob*!); KIANGSI: Kiukiang (*hb. Forbes*!); FOKIEN: Chinchew (*Fortune*!). Mus. Brit.; Herb. Kew.

We follow Maximowicz in retaining this as an independent species, though it is hardly separable from *L. macrocarpa*, Bunge.

6. **Lespedeza cyclobotrya,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 48; *Maxim. in Acta Horti Petrop.* ii. p. 357.

COREAN ARCHIPELAGO? (*Oldham*, 337!). Herb. Kew.

Japan.

7. **Lespedeza Davidii,** *Franchet, Pl. David.* p. 94, t. 13.

KIANGSI: Kiukiang (*David*, 925, ex *Franchet*, *Shearer*!). Herb. Kew.

There can be no doubt that Shearer's plant is the species described by Franchet, though the largest leaflets are as much as three inches and a half long.

8. **Lespedeza elliptica,** *Benth. Cat. Griff. Pl.* no. 1745 (nomen tantum); *Maxim. in Acta Horti Petrop.* ii. p. 353; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 143.

HUPEH: Ichang and Patung (*A. Henry*!). Herb. Kew.

Khasia mountains, India.

The Chinese specimens are in flower and are generally more hairy than the Indian, especially the upper surface of the leaves.

9. **Lespedeza floribunda,** *Bunge, Descr. Gen. et Sp. Pl. Chin.* p. 13; *Maxim. in Acta Horti Petrop.* ii. p. 360; *Hance in Journ. Linn. Soc.* xiii. p. 78; *Debeaux, Fl. Tchef.* p. 48; *Franchet, Pl. David.* p. 96.

CHIHLI: near Peking (*Bretschneider*!), Jehol (*David*, 2136, ex *Franchet*). Mus. Brit.; Herb. Kew.

10. **Lespedeza juncea,** *Pers. Syn. Pl.* ii. p. 318; *DC. Prodr.* ii. p. 348; *Maxim. in Acta Horti Petrop.* ii. pp. 370 et 371, in nota (varietates inschanica, kanaoriensis, sericea et latifolia); *Miq. in Journ. de Bot. Néerl.* i. p. 123; *Franchet, Pl. David.* p. 96; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 142.

Lespedeza sericea, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 49; *Maxim. loc. cit.* p. 368.

Lespedeza cuneata, *G. Don, Gen. Syst.* ii. p. 307; *Benth. in Hook. Kew Journ. Bot.* iv. p. 47, et *Fl. Hongk.* p. 85; *Seem. Bot. Voy. 'Herald,'* p. 374; *Kurz in Journ. Bot.* 1873, p. 193.

Var. α. **juncea,** *Pers. Syn. Pl.* ii. p. 318 (species propria).

CHIHLI: near Peking (*Bushell*! *Tatarinow*!); between Peking and Jehol (*Staunton*!); Jehol (*David*, 2137, ex *Franchet*); SHANTUNG: Chefoo (ex *Debeaux*); KIANGSI: Kiukiang (*Shearer*!). Mus. Brit.; Herb. Kew.

Eastern Siberia and Mandshuria.

Var. β. **inschanica,** *Maxim. in Acta Horti Petrop.* ii. p. 371, in nota.

CHIHLI: mountains of Inschan, near Peking (ex *Maximowicz*).

Var. γ. **sericea,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 49 (species propria).

CHINA: without locality (*Fortune*, 46! *Millett*!); SHINGKING: Kaichow to Kiuchow (*Ross*!); SHANTUNG (*Maingay*!); KIANGSU: Shanghai (*Maingay*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Hance*, 1428! *Wilford*!); FORMOSA: Tamsui (*Oldham*, 188!); HUPEH: Ichang and Patung (*A. Henry*!); SZECHUEN (*Mesny*!); YUNNAN (*Anderson* ex *Kurz*); KWANGTUNG (*Hance*!); HONGKONG (*Champion*! *Fortune*!); COREA (*Carles*!); COREAN ARCHIPELAGO (*Oldham*!). Mus. Brit.; Herb. Kew.

North India, Japan, Australia.

Var. δ. **latifolia.**

Lespedeza juncea, var. subsessilis, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 49.

COREAN ARCHIPELAGO (*Oldham*, 334!). Herb. Kew.

11. **Lespedeza macrocarpa,** *Bunge, Enum. Pl. Chin. Bor.* p. 18; *Maxim. in Acta Horti Petrop.* ii. p. 351; *Franchet, Pl. David.* p. 94.

Campylotropis chinensis, *Bunge, Descrip. Nov. Gen. et Sp. Pl. Chin.* dec. i. p. 7; *Walp. Rep.* v. p. 527.

CHIHLI: near Peking (*Mœllendorff*! *Bushell*! *Bretschneider*!), Kupehkan, 100 miles north of Peking (*Williams*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

12. **Lespedeza medicaginoides,** *Bunge, Enum. Pl. Chin. Bor.* p. 19; *Walp. Rep.* i. p. 478; *Maxim. in Acta Horti Petrop.* ii. p. 375; *Franchet, Pl. David.* p. 96.

CHIHLI: near Peking (*Staunton*! *Bushell*! *Williams*! *Tatarinow*! *Skatchkoff*!); SHINGKING: Peiling (*Webster*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

There is some doubt whether the specimens referred here really belong to this species.

13. **Lespedeza pilosa,** *Sieb. et Zucc. Fl. Jap. Fam. Nat.* i. p. 121; *Maxim. in Acta Horti Petrop.* ii. p. 381.

COREAN ARCHIPELAGO: both groups (*Oldham*, 345!). Herb. Kew.

Japan.

14. **Lespedeza striata,** *Hook. et Arn. Bot. Beech. Voy.* p. 262; *Benth. Fl. Hongk.* p. 85; *Maxim. in Acta Horti Petrop.* ii. p. 382; *U.S. Dep. Agric. Rep.* 1878, p. 180, t. 24; *Rep. Adelaide Bot. Gard.* 1887, p. 4.

Lespedeza stipulacea, *Maxim. Prim. Fl. Amur.* pp. 85 et 470.

Common from CHIHLI, SHINGKING, the COREA, and HUPEH to HONGKONG and FORMOSA (*Cantor*! *Tatarinow*! *Ross*! *Maingay*! *Oldham*! *A. Henry*! *Staunton*! and others). Mus. Brit.; Herb. Kew.

Mandshuria and Japan, and colonized in the Southern States of North America, where it is known as "Japan Clover." In California it has spread over thousands of acres, and affords excellent pasturage; and attempts are being made to establish it in South Australia.

15. **Lespedeza trichocarpa,** *Pers. Syn. Pl.* ii. p. 318; *Maxim. in Acta Horti Petrop.* ii. p. 375; *Debeaux Fl. Tchef.* p. 47; *Franchet, Pl. David.* p. 97.

CHIHLI: near Peking (*Bretschneider*! *Swinhoe*! *Williams*! *Cantor*!); HUPEH: Ichang (*A. Henry*!). Herb. Kew.

Eastern Siberia.

16. **Lespedeza viatorum,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 47; *Benth. Fl. Hongk.* p. 86; *Walp. Ann.* iv. p. 547; *Maxim. in Acta Hort. Petrop.* ii. p. 355.

CHINA: without locality (*Fortune*! *Parkes*!); CHEKIANG: Chusan (*Jacob*!); KIANGSI: Kiukiang (*Shearer*?); FOKIEN: Amoy (*Hance*, 622! *Swinhoe*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Urquhart*! *Champion*! *Wilford*! *Lamont*!) Mus. Brit.; Herb. Kew.

Shearer's Kiukiang specimen is perhaps *L. bicolor* rather than this species.

17. **Lespedeza villosa,** *Pers. Syn. Pl.* ii. p. 318; *DC. Prodr.* ii. p. 349; *Oliver in Journ. Linn. Soc.* ix. p. 166.

Lespedeza macrophylla, *Bunge, Descr. Nov. Gen. et Sp. Pl. Chin.* dec. i. p. 10; *Turcz. Enum. Pl. Chin. Bor. in Bull. Soc. Nat. Mosc.* p. 151.

Lespedeza tomentosa, *Sieb.* ex *Maxim. in Acta Horti Petrop.* ii. p. 376; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 143; *Franchet, Pl. David.* p. 97; *Debeaux, Fl. Tchef.* p. 46.

CHINA: without locality (*Fortune*, 133!); CHIHLI: near Peking (*Bretschneider*! *Skatchkoff*! *Tatarinow*!); SHINGKING: Peiling (*Webster*!), Kaichow to Kiuchow (*Ross*!); SHANTUNG: Chefoo (*Fortune*!); KIANGSU: Shanghai (*Maingay*!); HUPEH: Ichang (*A. Henry*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

North-west India, Mandshuria, and Japan.

18. **Lespedeza virgata,** *DC. Prodr.* ii. p. 350; *Maxim. in Acta Horti Petrop.* ii. p. 362; *Franch. in Mém. Soc. Nat. Cherbourg,* xxiv. p. 212.

Lespedeza Swinhoei, *Hance in Ann. Sc. Nat.* 5e série, v. p. 210.

SHANTUNG (*Maingay*!); CHEKIANG: Ningpo (*Swinhoe*!), Chusan (*Jacob*!); FOKIEN: Lamyet Island (*Swinhoe*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*A. Henry*!), COREA: Chemulpo (*Carles*!); COREAN ARCHIPELAGO (*Oldham*, 340!). Mus. Brit.; Herb. Kew.

Japan.

19. **Lespedeza** sp. nov.? *L. pilosæ* affinis.
HUPEH: Ichang (*A. Henry*!). Herb. Kew.

1. **Vicia amœna,** *Fisch. in DC. Prodr.* ii. p. 355; *Ledeb. Fl. Ross.* i. p. 672, et *Ic. Fl. Ross.* t. 481; *Franchet, Pl. David.* p. 98.

Vicia Rapunculus, *Debeaux, Fl. Tchef.* p. 49, ex *Franch. in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 212.

CHIHLI: near Peking (*Bushell*! *Bretschneider*!), Jehol (*David,* 1891!); SHINGKING: Kaichow to Kiuchow (*Ross*!), Talienwhan (*Birnie*!); SHANTUNG (*Maingay*!); COREA: Port Chusan (*Wilford*!). Mus. Brit.; Herb. Kew.

Siberia and Japan.

2. **Vicia angustifolia,** *Roth, Tent. Fl. Germ.* i. p. 310; *Ledeb. Fl. Ross.* i. p. 666; *Franchet, Pl. David.* p. 98.

SHENSI (*David* ex *Franchet*).

Europe, N. Africa, and Asia eastward to Japan.

3. **Vicia Cracca,** *Linn. Sp. Pl.* ed. 1, p. 735; *DC. Prodr.* ii. p. 357; *Ledeb. Fl. Ross.* i. p. 674; *Hance in Journ. Bot.* 1882, p. 259.

NORTH CHINA: Moukden to Kirin (*James*!); HUPEH: Ichang (*A. Henry*!); KANSUH (*Piasezki* ex *Maximowicz*); SZECHUEN (*Parker* ex *Hance*); COREAN ARCHIPELAGO (*Oldham,* 363!). Mus. Brit.; Herb. Kew.

Europe, N. Africa, Asia, and N. America.

4. **Vicia gigantea,** *Bunge, Enum. Pl. Chin. Bor.* p. 19; *Walp. Rep.* i. p. 715; *Franchet, Pl. David.* p. 98.

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Tatarinow*!). Herb. Kew.

An imperfect specimen of a *Vicia* (or *Lathyrus*) in the Kew Herbarium from near Peking, collected by Bushell, looks at first sight like a reduced state of this species; but it is more probably an undescribed one. It has unijugate leaflets, and fewer, larger flowers, with a very short-toothed calyx.

5. **Vicia hirsuta,** *Koch, Synopsis Fl. Germ.* ed. 1, p. 191; *Franchet, Pl. David.* p. 99.

Ervum hirsutum, *Linn. Sp. Pl.* ed. 1, p. 738; *DC. Prodr.* ii. p. 366; *Ledeb. Fl. Ross.* i. p. 663.

KIANGSU: Shanghai (*Perry*!); KIANGSI: Kiukiang (*Shearer*!);

COREA: Port Hamilton (*Wilford*, 632!). Mus. Brit.; Herb. Kew.

Europe, N. Africa, and Asia; colonized in America.

6. **Vicia pseudo-Orobus**, *Fisch. et Mey. Ind. Sem. Hort. Petrop.* p. 41; *Ledeb. Fl. Ross.* i. p. 671; *Franchet, Pl. David.* p. 97.

CHIHLI: Peking (*Skatchkoff*!), Jehol (*David*, 2148, ex *Franchet*); Chienshan, Moukden, and Peiling (*Webster*!). Mus. Brit.; Herb. Kew.

Dahuria to Japan.

The plant referred to by Baker and Moore (in Journ. Linn. Soc. xvii. p. 381) as a probable variety of *Vicia pseudo-Orobus*, Fisch. et Mey., is apparently **Orobus venosus**, Willd. (*Vicia venosa*, Maxim. in Mél. Biol. ix. p. 66), a Siberian species; and there is a specimen of another **Orobus** in the Kew Herbarium, collected by James in Shingking or Northern Corea, which may be *O. vernus*, Linn., =*Lathyrus vernus*, Koch; but these widely-spread *Vicieæ* present such a diversity of forms that they are not easily determinable, except from very complete specimens.

7. **Vicia sativa,** *Linn. Sp. Pl.* ed. 1, p. 736; *DC. Prodr.* ii. p. 360; *Hance in Journ. Bot.* 1883, p. 297; *Debeaux, Fl. Shangh.* p. 28.

NORTH CHINA: apparently widely spread (*Henry*! *Maingay*! *Wilford*!). Mus. Brit.; Herb. Kew.

A native of the Mediterranean region, now widely colonized through cultivation.

8. **Vicia tetrasperma,** *Mœnch, Meth. Pl.* p. 148.

**Ervum tetraspermum,** *Linn. Sp. Pl.* ed. 1, p. 738; *Ledeb. Fl. Ross.* i. p. 663.

KIANGSU: Shanghai (*Maingay*!); FOKIEN: Foochow (*Perry*!); COREAN ARCHIPELAGO (*Oldham*, 364!). Herb. Kew.

Europe, N. Africa, and Asia, eastward to Japan.

9. **Vicia tridentata,** *Bunge, Enum. Pl. Chin. Bor.* p. 19; *Walp. Rep.* i. p. 715; *Maxim. Fl. As. Or. Fragm.* p. 9; *Franchet, Pl. David.* p. 98.

CHIHLI: near Peking (*Bretschneider*! *Williams*! *Everard*! *Bunge*!); SHINGKING: Peiling (*Webster*!); SHANTUNG: Chefoo (*Hancock*!); SHENSI (*David*, 2367!). Herb. Kew.

10. **Vicia unijuga,** *Al. Br. in Ind. Sem. Hort. Berol.* 1853, p. 12; *Hance in Journ. Bot.* 1874, p. 259; *Debeaux, Fl. Tchef.* p. 51; *Franchet, Pl. David.* p. 99; *Maxim. in Mél. Biol.* ix. p. 65.

Orobus lathyroides, *Linn. Sp. Pl.* ed. 1, p. 728; *DC. Prodr.* ii. p. 377; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381.

CHIHLI: near Peking (*Bushell! Bretschneider!*); SKINGKING or NORTH COREA (*James!*); SHANTUNG (*Maingay!*); KIANGSI: Kiukiang (*Mœllendorff* ex *Hance*); COREA: Port Chusan (*Wilford!*). Mus. Brit.; Herb. Kew.

Mandshuria, Japan.

1. **Lathyrus Davidii,** *Hance in Journ. Bot.* 1871, p. 130; *Maxim. in Mél. Biol.* ix. p. 63; *Franchet, Pl. David.* p. 99, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 212.

CHIHLI: near Peking (*David*, 2215!), Pohuashan (*Tatarinow* ex *Maximowicz*); SHINGKING: Moukden (*Webster!*); SHINGKING or COREA (*James!*); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*). Mus. Brit.; Herb. Kew.

Amur, Mandshuria, and Japan.

2. **Lathyrus maritimus,** *Bigel. Fl. Bost.* 2nd ed. p. 268; *Walp. Rep.* i. p. 720; *Maxim. in Mél. Biol.* ix. p. 60, et *Fl. As. Or. Fragm.* p. 9.

Pisum maritimum, *Linn. Sp. Pl.* ed. 1, p. 727; *DC. Prodr.* ii. p. 368.

SHANTUNG: Chefoo (*Hancock!*); COREA: Port Chusan and Port Hamilton (*Wilford*, 685!), Chemulpo (*Carles!*); COREAN ARCHIPELAGO (*Oldham*, 365!). Herb. Kew.

Temperate and arctic Europe, Asia, and N. America.

3. **Lathyrus palustris,** *Linn. Sp. Pl.* ed. 1, p. 733; *DC. Prodr.* ii. p. 371; *Hance in Journ. Bot.* 1883, p. 297; *Maxim. in Mél. Biol.* ix. p. 62; *Baker et S. Moore, in Journ. Linn. Soc.* xvii. p. 381; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 213; *Debeaux, Fl. Tchef.* p. 51 (varietates).

CHIHLI: near Peking (*Kirilow* ex *Maximowicz*); SHINGKING: Jaoling (*Ross!*), between Moukden and Tungcheshien (*James!*), Peiling (*Webster!*); SHANTUNG: Chefoo (*Perry!*); CHEKIANG: Ningpo (*Swinhoe* ex *Hance*); HUPEH: Ichang (*A. Henry!*); COREA: Chemulpo (*Carles!*). Mus. Brit.; Herb. Kew.

Temperate and arctic regions in Europe, Asia, and N. America.

All the Chinese specimens we have seen have remarkably long

narrow leaflets, and probably belong to the var. γ. *linearifolius*, Ser. (DC. Prodr. ii. p. 371).

[*Ervum Lens*, Linn., and *Pisum sativum*, Linn., are both commonly cultivated in China.]

1. **Abrus cantoniensis**, *Hance in Journ. Bot.* 1868, p. 112, et 1869, p. 336.

KWANGTUNG: Pakwan, near Canton (*Sampson*!), Whampoa (*Hance*, 13417!). Mus. Brit.; Herb. Kew.

2. **Abrus mollis**, *Hance in Journ. Bot.* 1871, p. 130.

KWANGTUNG: Shekmum, near Canton, and White Cloud Hill (*Sampson*!). Mus. Brit.; Herb. Kew.

In a note accompanying his specimens, Sampson states that in his opinion *A. cantoniensis* and *A. mollis* are forms of one species; and he is probably right; but the specimens we have seen are hardly sufficient to enable us to pronounce an opinion on the subject.

3. **Abrus precatorius**, *Linn. Syst. Nat.* ed. 13, p. 472; *Lour. Fl. Cochinch.* p. 428; *DC. Prodr.* ii. p. 381; *Hook. et Arn. Bot. Beech. Voy.* p. 181; *Seem. Bot. Voy. 'Herald,'* p. 374; *Benth. Fl. Hongk.* p. 92.

SOUTH CHINA: without locality (*Millett*!). Mus. Brit.; Herb. Kew.

Almost all over the tropics.

1. **Clitoria Hanceana**, *Hemsl.*, n. sp.

*Suffrutex* vel *herba* lignosa, semipedalis (*Lebeuf*), caulibus teretibus flexuosis, internodiis brevibus. *Folia* subsessilia vel petiolata, trifoliolata; foliola inæqualia, papyracea vel subcoriacea, subsessilia vel petiolulata (intermedium interdum longiuscule petiolulatum), oblonga, utrinque rotundata vel cuneata, apice apiculata, supra glabra, minute reticulato-venosa, subtus argenteo-pubescentia; stipulæ ovato-lanceolatæ, acutæ. *Flores* albi (*Lebeuf*), circiter $1\frac{1}{4}$ poll. longi, in axillis foliorum geminati, pedunculis pedicellisque brevibus; bracteæ et bracteolæ late ovatæ, striatæ, sericeæ; calyx corolla tertia parte brevior, parce sericeus, prominenter longitudinaliter multinervosus vel fere costatus, alte subæqualiter 5-lobatus, lobis lanceolatis acuminatissimis; petala (præcipue vexillum) hirta; vexillum cucullatum, prominenter venosum; carina et alæ parvæ longe graciliterque unguiculatæ; ovarium stipitatum, multiovulatum, puberulum,

sutura interiore præsertim basi barbata, stylo elongato incurvato parce barbato. *Legumen* breviter stipitatum, glabrum, crustaceum, oblongum, 2½–3 poll. longum, leviter compressum, acutum, ecostatum.

Clitoria macrophylla, *Hance in Journ. Bot.* 1878, p. 9, *non Wall.*

KWANGTUNG: waste places along the North river (*Sampson, hb. Hance*, 11364!). Mus. Brit.; Herb. Kew.

Also in Cochinchina, collected by Godefroy Lebeuf.

Readily distinguished from *C. macrophylla*, Wall., which is a climber with long internodes and petioles, almost glabrous leaves of a thicker texture, and more numerous flowers. In foliage *C. Hanceana* strongly resembles *C. cajanæfolia*.

2. **Clitoria Ternatea**, *Linn. Sp. Pl.* ed. 1, p. 753; *DC. Prodr.* ii. p. 233; *Miq. Journ. de Bot. Néerl.* i. p. 123; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 208.

SOUTH CHINA (*Krone* ex *Miquel*); HONGKONG (*Urquhart*, cult.!, *Forbes*, naturalized!). Mus. Brit.; Herb. Kew.

Generally spread in tropical countries, though probably existing in many places only as an escape from cultivation.

1. **Amphicarpæa Edgeworthii**, *Benth.*, var. **japonica**, *Oliv. in Journ. Linn. Soc.* ix. p. 164; *Maxim. Fl. As. Or. Fragm.* p. 9, et *in Mél. Biól.* ix. p. 69.

CHIHLI: near Peking (*Bretschneider*!); SHANTUNG: Cheefoo (*hb. Forbes*!); HUPEH: Ichang (*A. Henry*!). Herb. Kew.

Amur, Mandshuria, Japan.

Scarcely distinguishable as a variety from the Indian *A. Edgeworthii*, and very closely allied to the North-American *A. monoica*.

1. **Glycine hispida**, *Maxim. in Mél. Biol.* ix. p. 70 (1873); *Franch. et Sav. Enum. Pl. Jap.* i. p. 108 (1875); *Franchet, Pl. David.* p. 100.

Soja hispida, *Mœnch, Meth. Pl.* p. 153; *DC. Prodr.* ii. p. 396; *Bretschn. Early Res.* pp. 27, 97, et 146.

Cultivated throughout China and Japan and other parts of Asia. Mus. Brit.; Herb. Kew.

2. **Glycine Soja**, *Sieb. et Zucc. Fam. Nat. Fl. Jap.* i. p. 119, *non Benth.* ex *Maxim. in Mél. Biol.* ix. p. 70; *Franchet, Pl. David.* p. 100, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 213.

Glycine ussuriensis, *Regel et Maack, Fl. Ussur.* p. 52, t. 7.

CHIHLI: near Peking (*Bretschneider! Tatarinow!*), Jehol (*David*, 2191, ex *Franchet*); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); HUPEH: Ichang (*A. Henry!*); COREA (*Carles!*). Mus. Brit.; Herb. Kew.

Amur, Mandshuria, and Japan.

This may be the wild form of the foregoing cultivated plant, and it is treated as such by most botanists; but as it is so easily distinguished, we follow Maximowicz in keeping them apart.

3. **Glycine tabacina**, *Benth. Fl. Austral.* ii. p. 244; *Walp. Ann.* vii. p. 780; *Hance in Journ. Bot.* 1878, p. 105.

FOKIEN: near Amoy (*Sampson!*); KWANGTUNG: Whampoa (*Hance*, 13061!). Mus. Brit.; Herb. Kew.

New Caledonia, and very widely diffused in Australia.

4. **Glycine tomentosa**, *Benth. Fl. Austral.* ii. p. 245; *Walp. Ann.* vii. p. 780; *Hance in Journ. Bot.* 1878, p. 105.

SHINGKING: Talienwhan (*Swinhoe, hb. Hance*, 5533!): FOKIEN: Amoy (*Sampson, hb. Hance*, 1423!); FORMOSA: Tamsui (*Oldham*, 196!). Mus. Brit.; Herb. Kew.

Philippine Islands and Eastern Australia.

[Walpers, in Nov. Act. Nat. Cur. xix., Suppl. i. p. 324, records *Johnia Wightii*, Wight et Arn.,=*Glycine javanica*, Linn., a common Asiatic and African plant, from Cape Lyngmoon.]

1. **Erythrina indica**, *Lam. Encycl.* ii. p. 391; *DC. Prodr.* ii. p. 412; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 188.

Erythrina Corallodendron, *Linn. Sp. Pl.* ed. 1, p. 706; *Lour. Fl. Cochinch.* p. 42.

SOUTH CHINA (ex *Loureiro*).

Widely spread in tropical Asia, and often cultivated.

1. **Apios Fortunei**, *Maxim. in Mél. Biol.* ix. p. 67.

FOKIEN: Amoy (*Fortune*, 44!); FORMOSA: Tamsui (*Oldham*, 179!). Mus. Brit.; Herb. Kew.

Japan.

1. **Mucuna Championi**, *Benth. in Hook. Kew Journ. Bot.* iv. p. 49; *Walp. Ann.* iv. p. 557; *Benth. Fl. Hongk.* p. 87.

HONGKONG (*Champion!*). Mus. Brit.; Herb. Kew.

2. **Mucuna macrobotrys**, *Hance in Walp. Ann.* ii. p. 422; *Benth. Fl. Hongk.* p. 87.

HONGKONG (*Harland*!), Mount Parker (*Ford*!). Mus. Brit.; Herb. Kew.

3. **Mucuna (§ Stizolobium) sempervirens**, *Hemsl.*, n. sp.

*Frutex* sempervirens, alte scandens, caule primario interdum 12 poll. diametro (*fide Henryi*), ramulis ultimis volubilibus. *Folia* trifoliolata, undique glaberrima, petiolata; foliola petiolulata, coriacea, nitida, ovato-oblonga (lateralia obliqua), 3½–5 poll. longa, acuminata, integerrima, venis primariis lateralibus utrinque 4–5 subtus sat conspicuis, venis ultimis utrinque minute reticulatis; petiolus graciliusculus, subteres, basi incrassatus, 3–4 poll. longus; petiolulus (seu rhachis) fol. intermedii circiter pollicaris, sub apice incrassato-articulatus; petioluli fol. lateralium incrassati, 3–4 lineas longi. *Flores* racemosi, sericei (alabastra tantum visa), racemis in ramis vetustioribus fasciculatis. *Legumen* lignosum, compressum, pedale (forsan interdum ultra) circiter 1½ poll. latum, abortu ovulorum nonnullorum inter semina sæpe constrictum, plus minusve aureo-puberulum, suturis ambobus incrassatis nec bicanaliculatis ut in *M. macrocarpo*; semina compressa, oblongo-rotundata, hilo velutino ad $\frac{5}{8}$ circumferentia attingente.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

This is nearly allied to the Indian *M. macrocarpum*, Wall., which differs conspicuously in the pod being channelled down both sides of both sutures.

In the Kew Herbarium is a raceme of flowers of a *Mucuna* from Ningpo, collected by Everard; probably of this species. The smaller flowers differ otherwise from those of *M. macrobotrys* in having a less deeply toothed calyx, in the wings being glabrous on the margin, and in the bifid standard.

1. **Galactia Tashiroi**, *Maxim. in Mél. Biol.* xii. p. 446.

LUCHU ARCHIPELAGO (*Tashiro* ex *Maximowicz*).

2. **Galactia**, sp.?

FORMOSA (*Swinhoe*!). Herb. Kew.

A distinct plant, but the material is insufficient for description.

1. **Pueraria phaseoloides**, *Benth. in Journ. Linn. Soc.* ix. p. 125; *Hance in Journ. Linn. Soc.* xiii. p. 102; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 199.

Neustanthus phaseoloides, *Benth. Pl. Jungh.* i. p. 235, et *in Fl. Hongk.* p. 86; *Walp. Ann.* iv. p. 556.

Dolichos phaseoloides, *Roxb. Fl. Ind.* iii. p. 316.

Pachyrhizus trilobus, *DC. Prodr.* ii. p. 402; *Hook. et Arn. Bot. Beech. Voy.* p. 184.

CHINA: without locality (*Millett*! *Parkes*!); HONGKONG (*Champion*! *Lamont*!). Mus. Brit.; Herb. Kew.

Widely diffused in tropical Asia.

2. **Pueraria Thunbergiana**, *Benth. in Journ. Linn. Soc.* ix. p. 122; *Hance in Journ. Bot.* 1874, p. 259, et *in Journ. Linn. Soc.* xiii. p. 102; *Maxim. Fl. As. Or. Fragm.* p. 9; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 213; *Bretschn. Early Res.* pp. 14 et 28.

Pachyrhizus Thunbergianus, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* ii. p. 113.

Neustanthus chinensis, *Benth. Fl. Hongk.* p. 86; *Miq. in Journ. de Bot. Néerl.* i. p. 123.

Pueraria sp., *Hemsl. in Journ. Bot.* 1876, p. 207.

Pachyrhizus trilobus, *DC.*? *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471.

CHINA: without locality (*Millett*! *Fortune*, 22!); CHIHLI: near Peking (*Tatarinow & Bretschneider* ex *Maximowicz*); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); CHEKIANG: without locality (*Staunton* !), Chusan (*Jacob* !); KIANGSI: Kiukiang (*Shearer* !); FORMOSA (*Oldham*, 178 !); HUPEH: Ichang (*A. Henry* !); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Harland*!); COREA: Chemulpo (*Carles* !), in various localities (*Perry* !). Mus. Brit.; Herb. Kew.

Common in Japan; and there is a specimen at Kew from the Buru Archipelago, which is probably this species. The specimens from the Corea and Formosa are very different in aspect, foliage, and length of the calyx-lobes; but they are connected by intermediate forms from Hongkong, Kiukiang, &c.

This plant furnishes the Ko-pou fibre, which is manufactured into a fabric used for underclothing in summer, and said to be very comfortable, as it does not cling to the skin. The anatomy and histology of the plant have been very fully elaborated by Dr. C. Avetta in the 'Annuario del R. Instituto Botanico di Roma,' 1885, pp. 201–222, tt. 17–19.

Among the unpublished documents at Kew relating to this plant is a most interesting report on its fibre and the cloth made

therefrom in Japan, by Mr. J. C. Hall, Acting Japanese Secretary to Her Majesty's Legation at Tokio. This report, together with particulars of the Chinese manufactures from the same fibre by Mr. W. R. Carles, Mr. W. M. Cooper, and others, is much too lengthy to be given here, but will doubtless shortly appear elsewhere. It seems, however, owing to the costly primitive process of preparation, that the manufacture of the fabric has greatly declined in Japan during the last ten years.

In the 'Bulletin de la Société d'Acclimatation de France,' 1885, p. 138, Mr. Ch. Naudin reports on cultural experiments with this plant in the Antibes, where it grew most luxuriantly, though it flowered only sparsely.

1. **Canavalia ensiformis**, *DC. Prodr.* ii. p. 404; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 195.

Dolichos ensiformis, *Linn. Sp. Pl.* ed. 1, p. 725; *Lour. Fl. Cochinch.* p. 437.

Canavalia gladiata, *DC. Prodr.* ii. p. 404; *Benth. Fl. Hongk.* p. 88.

FORMOSA (*Oldham*!); KWANGTUNG: French Island, Whampoa (*Hance*, 5196!); HONGKONG (*Wright*, *Urquhart*, and others). Mus. Brit.; Herb. Kew.

Var. **turgida**, *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 196; *Grah. in Wall. Cat.* 5534 (species).

CHINA: without locality and collector's name. Herb. Kew.

Generally dispersed in the tropics, especially in littoral districts; also cultivated.

2. **Canavalia obtusifolia**, *DC. Prodr.* ii. p. 404; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 196; *Hemsl. Bot. 'Challenger' Exped.* i. 1. p. 29, et 3. pp. 141 et 291.

FORMOSA (*Oldham*, 177!); HONGKONG (*Lamont*!). Mus. Brit.; Herb. Kew.

Almost universal on tropical sea-shores, including many remote islands and islets.

1. **Phaseolus anguinus**, *Bunge, Enum. Pl. Chin. Bor.* p. 20; *Walp. Rep.* i. p. 776.

CHIHLI: near Peking, cult. (*Bunge*).

Described as being near *P. trilobus*, Ait., one of the commonly cultivated species.

2. **Phaseolus chrysanthus**, *Savi, Diss.* i. p. 15, ex *DC. Prodr.* ii. p. 395.

CHIHLI: near Peking, cult. (*Bretschneider* !); HUPEH: Ichang, cult. (*A. Henry* !). Herb. Kew.

3. **Phaseolus humilis**, *Hassk. Cat. Pl. Hort. Bogor.* p. 278; *Walp. Rep.* v. p. 537.

CHINA.

4. **Phaseolus minimus**, *Roxb. Fl. Ind.* iii. p. 290; *Benth. Fl. Hongk.* p. 88.

KWANGTUNG: Lofaushan (*Ford* !); HONGKONG (*Harland* ! *Hance*, 1317 !). Mus. Brit.; Herb. Kew.

Several other species of this genus are commonly cultivated in China, among them *Phaseolus vulgaris*, *P. radiatus*, and *P. Mungo* (see Bretschneider, 'Early Researches,' p. 146); and there are specimens of the last in the Kew Herbarium from Formosa, collected by Oldham; whether wild or cultivated is not stated. Debeaux (Fl. Shangh. p. 28) records *P. Ricciardianus, β. hysterinus*, as a cultivated plant of the neighbourhood of Shanghai.

1. **Vigna lutea**, *A. Gr. in Bot. Wilkes's U.S. Expl. Exped.* i. p. 452; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 205.

SOUTH CHINA (*Ford* !).

Generally spread in maritime districts within the tropics.

2. **Vigna sinensis**, *Hassk. Pl. Jav. Rar.* p. 386; *Walp. Ann.* iv. p. 562.

Dolichos sinensis, *Linn. Amœn. Acad.* iv. p. 326; *DC. Prodr.* ii. p. 399; *Bot. Mag.* t. 2232.

Dolichos Catiang, *Linn. Mant.* p. 269; *DC. Prodr.* ii. p. 399; *Lour. Fl. Cochinch.* p. 442; *Bretschn. Early Res.* p. 147.

Vigna Catiang, *Miq. Fl. Ind. Bat.* i. p. 188; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 205.

CHINA: commonly cultivated and colonized, or perhaps native in some parts. Also cultivated in the tropics generally.

3. **Vigna vexillata**, *Benth. in Mart. Fl. Bras.* xv. p. 194, t. 50. f. 1; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 206.

Phaseolus vexillatus, *Linn. Sp. Pl.* ed. 1, p. 274.

HUPEH: Ichang (*A. Henry* !). Herb. Kew.

Spread nearly over all the tropics.

In addition to the foregoing, there is a fragmentary specimen in the Kew Herbarium from Luchu, collected by Wright, which probably belongs to this genus.

1. **Pachyrhizus angulatus**, *Rich. in DC. Prodr.* ii. p. 402; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 207; *Hook. et Arn. Bot. Beech. Voy.* p. 184.

Dolichos trilobus, *Linn. Sp. Pl.* ed. 1, p. 726; *Lour. Fl. Cochinch.* p. 439.

Pachyrhizus trilobus, *DC. Prodr.* ii. p. 402.

SOUTH CHINA: without locality (*Millett!*). Herb. Kew.

Cultivated, and wild or naturalized, almost everywhere in the tropics.

1. **Psophocarpus tetragonolobus**, *DC. Prodr.* ii. p. 403; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 211.

Dolichos tetragonolobus, *Linn. Sp. Pl.* ed. 2, p. 1020; *Lour. Fl. Cochinch.* p. 437.

SOUTH CHINA (ex *Loureiro*).

Commonly cultivated in the tropics of the Old World.

1. **Dolichos biflorus**, *Linn. Sp. Pl.* ed. 1, p. 727; *Lour. Fl. Cochinch.* p. 441; *DC. Prodr.* ii. p. 398; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 210.

KWANGTUNG: Canton (ex *Loureiro*).

Generally spread in the tropics of the Old World, and sometimes cultivated.

2. **Dolichos Lablab**, *Linn. Sp. Pl.* ed. 1, p. 725; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 209.

Lablab vulgaris, *Savi, Diss.* p. 19; *DC. Prodr.* ii. p. 401; *Miq. in Journ. de Bot. Néerl.* i. p. 123.

Lablab nankinensis, *DC. Prodr.* ii. p. 402.

Dolichos purpureus, *Linn. Sp. Pl.* ed. 2, p. 1021; *Lour. Fl. Cochinch.* p. 438; *Bot. Reg.* t. 830; *Bretschn. Early Res.* p. 147.

Dolichos albus, *Lour. Fl. Cochinch.* p. 439.

Dolichos perennans, *DC. Prodr.* ii. p. 402.

FORMOSA (*Oldham!*); HUPEH: Ichang, cult. (*A. Henry!*); KWANGTUNG: Pakhoi (*Playfair!*), Macao (*Millett!*). Mus. Brit. Herb. Kew.

Tropics of the Old World, and very extensively cultivated.

*Dolichos cultratus*, DC., recorded by Franchet (Mém. Soc. Sc. Nat. Cherbourg, xxiv. p. 213) as a cultivated plant in Shantung, is perhaps a form of this species; and *D. unguiculatus*, Thunb., a species cultivated in Japan, is stated to be Chinese by Loureiro; but it is most difficult, indeed probably impossible, to determine the native countries of most of the numerous *Phaseoleæ* in cultivation.

1. **Cajanus indicus**, *Spreng. Syst. Veg.* iii. p. 248; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 217; *Benth. Fl. Hongk.* p. 89; *Maxim. in Mél. Biol.* xii. p. 447; *Bot. Mag.* t. 6440.

Cytisus Cajan, *Linn. Sp. Pl.* ed. 1, p. 739; *Lour. Fl. Cochinch.* p. 463.

Cajanus flavus *et* C. bicolor, *DC. Prodr.* ii. p. 406; *Bot. Reg.* 1845, t. 31.

FORMOSA (*Maries*!); HONGKONG (*Wright*! *Hance*!); LUCHU ARCHIPELAGO (*Tanaka* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Commonly cultivated, and now spread all over the tropics, though probably native only in the Old World.

1. **Dunbaria conspersa**, *Benth. in Pl. Jungh.* i. p. 241; *Fl. Hongk.* p. 89; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 218.

KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Harland*! *Hance*, 1316! *Lamont*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia, and extending to North Australia.

2. **Dunbaria subrhombea**, *Hemsl. in Journ. Bot.* 1876, p. 207.

Atylosia subrhombea, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 51.

Glycine villosa, *Thunb. Fl. Jap.* p. 283.

KIANGSI: Kiukiang (*Shearer*! *Forbes*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Japan.

1. **Atylosia scarabæoides**, *Benth. Pl. Jungh.* i. p. 242; *Fl. Hongk.* p. 90; *Miq. in Journ. de Bot. Néerl.* i. p. 123; *Baker in Hook. f. Fl. Brit. Ind.* i. p. 215.

CHINA: without locality (*Fortune*, 34!); in the south-west (*Swinhoe*!); HONGKONG (*Wilford*! *Wright*! *Hinds*! *Lamont*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Mauritius, Bourbon, and Madagascar.

1. **Rhynchosia? Henryi,** *Hemsl.*, n. sp.

*Frutex* supra arbores scandens, ramulis floriferis gracillimis foliisque ferrugineo-pubescentibus. *Folia* graciliter petiolata, pinnatim trifoliolata, cum petiolo usque ad 5 poll. longa; foliola breviter petiolulata, tenuia, plus minusve inæqualia, ovali-oblonga vel interdum ovata, maxima 2 poll. longa, utrinque rotundata, apice simul minute mucronata, supra glabra vel glabrescentia, subtus appresse sericeo-pubescentia, albida vel ferruginea. *Flores* lutei, 8–9 lineas longi, densiuscule racemosi, brevissime pedicellati, racemis gracillimis folia æquantibus, bracteis minutis persistentibus; calyx appresse hirsutus, tubulosus, oblique truncatus, postice plus minusve fissus; petala fere æquilonga, glabra, longe unguiculata (unguibus carinæ et alarum gracillimis), vexillo lato biauriculato, alis 1-vesiculosis; stamina diadelphia, glabra, antheræ conformes; ovarium glabrum, distincte stipitatum, biovulatum, stylo elongato gracillimo superne incrassato. *Legumen* non vidi.

HUPEH: Nanto and mountains to the northward (*A. Henry*!). Herb. Kew.

This is somewhat anomalous in having a tubular truncate calyx, more or less fissured on the vexillary side; but otherwise it does not differ materially from *Rhynchosia*, unless the ripe pod should afford a more distinctive character.

2. **Rhynchosia minima,** *DC. Prodr.* ii. p. 385; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 223; *Maxim. in Mél. Biol.* xii. p. 447.

LUCHU ARCHIPELAGO (*Tanaka* ex *Maximowicz*).

All over the tropics, and extending to temperate regions as in South Africa and the United States.

3. **Rhynchosia volubilis,** *Lour. Fl. Cochinch.* p. 460; *DC. Prodr.* ii. p. 385; *Benth. Fl. Hongk.* p. 90; *Maxim. in Mél. Biol.* ix. p. 70.

CHINA: without locality (*Millett*); KIANGSU: Shanghai (*Maingay*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA (*Oldham*, 168!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Macao (*Vachell*!), Pakhoi (*Playfair*!), Canton (*Parkes*!); HONGKONG (*Wright*! *Champion*!); COREAN ARCHIPELAGO (ex *Maximowicz*). Mus. Brit.; Herb. Kew.

**Japan.**

4. **Rhynchosia** sp., affinis *R. viscosæ*, DC.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

Very near the common Indian *R. viscosa*; but the leaflets are ovate instead of rhomboidal, and there are slight floral differences. The pod is unknown.

1. **Eriosema chinense,** *Vogel, in Nov. Act. Nat. Cur.* xix. *Suppl.* 1, p. 31; *Walp. Rep.* i. p. 784; *Benth. Fl. Hongk.* p. 91; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 219; *Miq. in Journ. de Bot. Néerl.* i. p. 123; *Henriq. in Bol. Soc. Brot.* iii. p. 151.

CHINA: without locality (*Parkes*!); KWANGTUNG: Pakhoi (*Playfair*!), Macao (*Silva* ex *Henriques*); HONGKONG (*Wright*! *Champion*!); KWANGSI (*Wenyon*!). Mus. Brit.; Herb. Kew.

Common in India and Malaya, and extending to the Philippines and North Australia.

1. **Flemingia congesta,** *Roxb. Hort. Beng.* p. 56, et *Fl. Ind.* iii. p. 340; *DC. Prodr.* ii. p. 351; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 228 (varietates plures); *Dyer in Pharm. Journ.* May 31, 1884.

Flemingia semialata, *Roxb.*, et F. prostrata, *Roxb. Fl. Ind.* iii. pp. 338 et 340; *Wight, Ic. Pl. Ind. Or.* t. 326.

Flemingia Lamontii, *Hance in Journ. Bot.* 1878, p. 10.

Flemingia Grahamiana, *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* p. 242; *Baker, loc. cit.*

Flemingia rhodocarpa, *Baker in Oliv. Fl. Trop. Afr.* ii. p. 231.

FOKIEN: Amoy (*Swinhoe*!); FORMOSA (*Oldham,* 183!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: on the West River (*Sampson*! *Lamont*!), Lofaushan (*Ford*!). Mus. Brit.; Herb. Kew.

A common and very variable species in tropical Africa, Arabia, India, Malaya, and the Philippines. The "waras" dye is extracted from this in Arabia.

Hance's *F. Lamontii* is exactly *F. prostrata*, Roxb.

2. **Flemingia stricta,** *Roxb. Corom. Pl.* iii. t. 248, et *Fl. Ind.* iii. p. 342; *DC. Prodr.* ii. p. 351; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 228.

CHINA: without locality (*Millett*!). Herb. Kew.

Tropical regions of India.

1. **Dalbergia Hancei,** *Benth. in Journ. Linn. Soc.* iv. *Suppl.* p. 44, et *in Fl. Hongk.* p. 93.

FOKIEN: Amoy interior (*Swinhoe*?); HONGKONG (*Wilford*! *Hance*, 1810! *Urquhart*! *Lamont*!). Mus. Brit.; Herb. Kew.

2. **Dalbergia hupeana,** *Hance in Journ. Bot.* 1882, p. 5.

HUPEH: Ichang (*Walters*, hb. *Hance*, 21, 189! *A. Henry*!); CHEKIANG: Ningpo (*Oldham*! *Cooper*!). Mus. Brit.; Herb. Kew.

This is the "Paitan." In Dr. A. Henry's notes it is stated that it is a tree 30 to 40 feet high, very common around Ichang; and the wood is used for the rammers of oil-presses.

3. **Dalbergia lanceolaria,** *Linn. f. Suppl.* p. 316; *DC. Prodr.* ii. p. 417; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 235; *S. Moore in Journ. Bot.* 1875, p. 231.

Dalbergia frondosa, *Roxb. Hort. Beng.* p. 53, et *Fl. Ind.* iii. p. 226; *Wight, Ic. Pl. Ind. Or.* t. 266.

CHINA: without locality (*Millett*!); KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

Tropical India from the Himalayas to Ceylon.

4. **Dalbergia Millettii,** *Benth. in Journ. Linn. Soc.* iv. *Suppl.* p. 34, et *Fl. Hongk.* p. 92.

Dalbergia polyphylla, *Benth. Pl. Jungh.* i. p. 256 (partim); *Seem. Bot. Voy. 'Herald,'* p. 375.

CHINA: without locality (*Millett*!); HUPEH: Ichang (*A. Henry*!); HONGKONG (*Champion*! *Wright*! *Wilford*! *Hance*, 1809! *Lamont*!). Mus. Brit.; Herb. Kew.

5. **Dalbergia monosperma,** *Dalz. in Hook. Kew Journ. Bot.* ii. p. 36; *Benth. in Journ. Linn. Soc.* iv. *Suppl.* p. 48, et *Fl. Hongk.* p. 93; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 237.

CHINA: without locality (*Millett*!); HONGKONG (*Hance*). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia, and extending to the Philippines and North Australia.

5. **Dalbergia rubiginosa,** *Roxb. Corom. Pl.* ii. p. 9, t. 115, et *Fl. Ind.* iii. p. 231; *Benth. Fl. Hongk.* p. 93; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 232.

HONGKONG (*Urquhart*! *Wright*! *Wilford*! *Harland*! *Hance*, 1053! *Lamont*!). Mus. Brit.; Herb. Kew.

Western peninsula of India.

There are imperfect specimens at Kew of one or two additional species of *Dalbergia* from Hainan, collected by B. C. Henry.

1. **Pterocarpus indicus,** *Willd. Sp. Pl.* iii. p. 904; *DC. Prodr.* ii. p. 419; *Benth. in Journ. Linn. Soc.* iv. *Suppl.* p. 77; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 238; *Bedd. Fl. Sylv.* t. 23.

Pterocarpus flavus, *Lour. Fl. Cochinch.* p. 431?

CHINA: without locality (*Beechey*! *Millett*! hb. *Roxburgh*!). Mus. Brit.; Herb. Kew.

Tropical Asia eastward to the Philippine Islands.

1. **Derris chinensis,** *Benth. in Journ. Linn. Soc.* iv. *Suppl.* p. 104, et *Fl. Hongk.* p. 94.

SOUTH CHINA (*Hance*, 1504!); OOSIMA (*Wright*!). Herb. Kew.

2. **Derris laxiflora,** *Benth. in Journ. Linn. Soc.* iv. *Suppl.* p. 105.

NORTH-WEST FORMOSA (*Wilford*!). Herb. Kew.

3. **Derris oblonga,** *Hance in Journ. Bot.* 1879, p. 10, vix *Benth. in Journ. Linn. Soc.* iv. *Suppl.* p. 112.

KWANGTUNG: on the muddy banks of rivers (*Sampson*), West river, Shiuhing (*Ford*!). Mus. Brit.; Herb. Kew.

After comparing this with the type of Bentham's *D. oblonga*, we strongly doubt its being the same; but ripe pods are wanting.

4. **Derris scandens,** *Benth. in Journ. Linn. Soc.* iv. *Suppl.* p. 103; *Fl. Hongk.* p. 94, in nota; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 240.

Dalbergia scandens, *Roxb. Corom. Pl.* ii. t. 192, et *Fl. Ind.* iii. p. 232; *Hook. et Arn. Bot. Beech. Voy.* p. 184.

SOUTH CHINA: without locality (*Millett*!). Herb. Kew.

Widely spread in tropical Asia, and extending to North Australia.

5. **Derris uliginosa,** *Benth. Pl. Jungh.* i. p. 252, et *in Journ. Linn. Soc.* iv. *Suppl.* p. 108 (β. Loureiri), et *Fl. Hongk.* p. 94; *Baker in Hook. f. Fl. Brit. Ind.* iii. p. 241.

Derris trifoliata, *Lour. Fl. Cochinch.* p. 433.

CHINA: without locality (*Macartney*!); KWANGTUNG: Whampoa

(*Hance*, 6052 !); Hongkong (*Wright* ! *Champion* !). Mus. Brit.; Herb. Kew.

Common, especially in littoral districts in tropical Asia, E. Africa, Mascarene Islands, and Polynesia, and also found in North Australia.

A large-leaved variety (?) of this species was collected by Ford on Harbour Island, Kelung, Formosa.

1. **Pongamia glabra**, *Vent. Jard. Malm.* t. 28; *DC. Prodr.* ii. p. 416; *Benth. in Journ. Linn. Soc.* iv. *Suppl.* p. 115, et *Fl. Hongk.* p. 94; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 240.

Kwangtung: Whampoa (*Hance*, 6064!); Hongkong (*Wright*!). Mus. Brit.; Herb. Kew.

One of the commonest sea-coast trees in the tropics of the Old World.

[*Pongamia chinensis*, DC. (Prodr. ii. p. 416; Hook. et Arn. Bot. Beech. Voy. p. 181), syn. *Robinia mitis*, Lour. (Fl. Cochinch. p. 455), not of Linnæus, is to us an altogether obscure plant.]

1. **Euchresta Horsfieldii**, *Benn. in Horsf. Pl. Jav. Rar.* p. 148, t. 31; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 248; *Maxim. in Mél. Biol.* xii. p. 448.

North-east Formosa: about ten miles inland (*Wilford*, 497 !); Luchu Archipelago (*Tashiro* ex *Maximowicz*). Herb. Kew.

Khasia mountains, Eastern India, and in Java.

2. **Euchresta tenuifolia**, *Hemsl.*, n. sp.

*Frutex* glabrescens, cortice demum rubescente nitido, ramulis floriferis graciliusculis plus minusve appresso-hirsutis. *Folia* 6–8 poll. longa, 5-foliolata, petiolo rhachideque gracili parce appresso-hirsuto; foliola brevissime petiolulata, membranacea (in ramis floriferis tenuissima), lanceolata, oblanceolata vel interdum fere rhomboidea, maxima (terminalia) usque ad 4 poll. longa, utrinque angustata, apice longe acuminata, utrinque præcipue secus costam et margines appresso-hirsuta vel strigillosa, venis ultimis minute reticulatis, petiolulis incrassatis barbatis. *Flores* infra pollicares, racemosi, racemis gracilibus paucifloris oppositifoliis vel subterminalibus; calyx truncatus vel obscure 5-dentatus, margine parce puberulus, latus, petalis dimidio brevior; petala obtusa, vexillo longiore basi incrassato, carina alisque longiuscule

unguiculatis; stamina 10, libera, filamentis deorsum dilatatis glabris; ovarium stipitatum, pauciovulatum, præcipue secus suturas longe denseque pilosum. *Legumen* ignotum.

CHEKIANG: Ningpo (*Cooper*!). Herb. Kew.

This is readily distinguished from the other two species by its very thin leaves with conspicuous finely reticulated venation. The free stamens and shaggy ovary are also distinctive characters, so far as the other species are known.

1. **Bowringia callicarpa,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 75; *Walp. Ann.* iv. p. 585; *Benth. Fl. Hongk.* p. 95.

CHINA: without locality (*Beechey*!); FOKIEN: Amoy mountains (*Swinhoe*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Urquhart*! *Champion*! *Wilford*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

1. **Cladrastis** sp.?

CHINA: without locality (*Millett*!). Herb. Kew.

This is perhaps the same as *Buergeria floribunda*, Miq. (Ann. Mus. Bot. Lugd.-Bat. iii. p. 53), which Maximowicz regards as a variety of *Cladrastis amurensis* (Mél. Biol. ix. p. 73); but our plant has flowers about half the size of typical *C. amurensis*, with an unequally 5-toothed calyx, and the alæ are auricled on one margin only. Millett's plant in the Kew Herbarium is named *Sophora heptaphylla* in the handwriting of the late Mr. Bentham. Linnæus's name *Sophora heptaphylla* is correctly applied to a Ceylon plant (see Baker in Hooker's 'Flora of British India,' ii. p. 250); though Linnæus himself never clearly defined it. In the first edition of the 'Species Plantarum' he doubtingly cites Plukenet's "Fructiculus [Frutex] sinensis," &c. (Amalth. App. no. 18, t. 451. fig. 10), and in the second edition he cites, without the sign of doubt, Rumphius's *Anticholerica* (Herb. Amb. iv. p. 60, t. 22), which is almost certainly *S. tomentosa*. Plukenet's figure probably represents the Chinese *S. flavescens*.

1. **Sophora alopecuroides,** *Linn. Sp. Pl.* ed. 1, p. 373; *DC. Prodr.* ii. p. 96; *Ledeb. Fl. Ross.* i. p. 716; *Kanitz in Math. und Naturw. Ber. Ungarn* (reprint), p. 7.

KANSUH (*Loczy* ex *Kanitz*).

Asia Minor, eastward through Central Asia.

2. **Sophora flavescens,** *Ait. Hort. Kew.* ed. 1, ii. p. 43; *Willd. Sp. Pl.* ii. p. 499; *DC. Prodr.* ii. p. 96; *Franchet, Pl. David.* p. 100, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 212 (β. galegoides).

Sophora galegoides, *Pall. Astrag.* p. 118, t. 88; *Debeaux, Fl. Tchef.* p. 29.

Sophora angustifolia, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* p. 10; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 53.

Sophora Kronei, *Hance in Ann. Sc. Nat.* 4me série, xviii. p. 220; *Walp. Ann.* vii. p. 801.

Sophora sororia, *Hance in Ann. Sc. Nat.* 5me série, v. p. 210.

CHIHLI: near Peking (*Bretschneider*! *Bushell*! *Williams*!), Pohuashan (*Bretschneider*!); SHINGKING: Talienhwan (*Birnie*!), Peiling (*Webster*!); SHANTUNG: without locality (*Maingay*!), Cheefoo (*Perry*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Lamyit Island (*Swinhoe*, hb. *Hance*, 1722!); FORMOSA: Tamsui (*Oldham*, 174!); HUPEH: Ichang (*A. Henry*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*); COREA: Port Chusan (*Wilford*, 952!); COREAN ARCHIPELAGO: Herschel Island &c. (*Oldham*, 383, 384!). Mus. Brit.; Herb. Kew.

Dahuria to Japan.

The extreme forms here referred to one species are easily distinguishable; but with a large series of specimens we have not been able to make a satisfactory separation of the intermediate ones.

Bretschneider ('Early Researches,' p. 145) states that the Chinese name of Loureiro's *Robinia? amara* (Fl. Cochinch. p. 455) is applied to *Sophora angustifolia*; and he suggests (*op. cit.* p. 147) that *Robinia? flava*, Lour. (*op. cit.* p. 456), may be *Sophora flavescens*, Ait.

3. **Sophora japonica,** *Linn. Mant.* p. 68; *DC. Prodr.* ii. p. 95; *Benth. Fl. Hongk.* p. 95; *Debeaux, Fl. Tients.* p. 16, et *Fl. Shangh.* p. 26; *Franchet, Pl. David.* p. 100 (var. *oligophylla*).

Styphnolobium japonicum, *Schott in Wiener Zeitschr.* 1830, p. 884; *Walp. Rep.* i. p. 807.

Mimosa corniculata, *Lour. Fl. Cochinch.* p. 651?, vide *Bretschn. Early Res.* p. 148.

CHINA: without locality (*Macartney*! *Millett*! *Fortune*, 35!); CHIHLI: without locality (*Staunton*!), near Peking (*Bretschneider*!); SHANTUNG (*Staunton*!); KIANGSU: Shanghai (ex *Debeaux*); CHEKIANG: Ningpo (*Cooper*!); KIANGSI: Kiukiang

(*Shearer*!); FOKIEN: Amoy (*Swinhoe*!); HUPEH: Ichang (*A. Henry*!); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz*); KWANGTUNG (ex *Debeaux*); HONGKONG (*Hance*!). Mus. Brit.; Herb. Kew.

This appears to occur in all the eastern provinces of China, either wild, or is cultivated for the sake of the "Imperial yellow dye" obtained from its flowers. Debeaux states that it is not indigenous in Japan. Among Dr. Henry's specimens from Ichang are some in which the young branches and the under surface of the leaves are clothed with a white velvety tomentum.

4. **Sophora mollis,** *Grah. in Wall. Cat.* n. 5335; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 251; *Kanitz in Math. und Naturw. Ber. Ungarn* (reprint), p. 14.

YUNNAN (*Loczy* ex *Kanitz*).

North India, from Hazara and the Salt Range to Kumaon and Nepal.

5. **Sophora Moorcroftiana,** *Benth. in Hook. f. Fl. Brit. Ind.* ii. p. 249; *Kanitz in Math. und Naturw. Ber. Ungarn* (reprint), p. 7.

KANSUH (*Loczy* ex *Kanitz*).

North-west India.

6. **Sophora pachycarpa,** *C. A. Mey. in Ind. Sem. Hort. Petrop.* xi. p. 89, ex *Walp. Rep.* ii. p. 903.

KANSUH: beyond the Great Wall (*Piasezki* ex *Maximowicz MSS.*). Herb. Kew.

Songaria.

7. **Sophora tomentosa,** *Linn. Sp. Pl.* ed. 1, p. 373; *DC. Prodr.* ii. p. 95; *Hemsl. in Bot. 'Chall.' Exped.* i. 3, p. 144.

KWANGTUNG (*Ford*!); HAINAN (*B. C. Henry*!). Mus. Brit.; Herb. Kew.

Very widely dispersed on tropical sea-shores, including many remote islands.

The plant referred to by Miquel (Journ. de Bot. Néerl. i. p. 123) as *S. glabra*, Hassk., from Kwangtung, is one of the varieties of this species.

8. **Sophora viciifolia,** *Hance in Journ. Bot.* 1881, p. 209.

Sophora Moorcroftiana, *Benth.*, var. Davidii, *Franchet, Pl. David.* p. 101, t. 14.

HUPEH: Ichang (*A. Henry*!); SHENSI (*David* ex *Franchet*). Mus. Brit.; Herb. Kew.

This is so easy to distinguish from the Indian *S. Moorcroftiana*, that we follow Hance in giving it specific rank.

1. **Ormosia emarginata,** *Benth. in Hook. Kew Journ. Bot.* iv. p. 77, et *Fl. Hongk.* p. 96.

Layia emarginata, *Hook. et Arn. Bot. Beech. Voy.* p. 183, t. 38.

Macrotropis emarginata, *Walp. Rep.* ii. p. 903.

CHINA: without locality (*Millett*! *Beechey*!); HONGKONG (*Urquhart*! *Champion*! *Wright*! *Lamont*! *Forbes*!). Mus. Brit.; Herb. Kew.

2. **Ormosia pachycarpa,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 76; *Benth. Fl. Hongk.* p. 96.

CHINA: without locality (*Reeves*!); HONGKONG (*Lamont*! *Champion*!). Mus. Brit.; Herb. Kew.

3. **Ormosia semicastrata,** *Hance in Journ. Bot.* 1882, p. 78.

HONGKONG (*Ford*!). Mus. Brit.; Herb. Kew.

[*Anagyris fœtida*, Lour. (Fl. Cochinch. p. 20), not of Linnæus, syn. *Macrotropis fœtida*, DC. (Prodr. ii. p. 98), and *Anagyris sinensis*, Steud. (Nomencl. Bot.), is an obscure plant of this affinity.]

## 46. LEGUMINOSÆ: CÆSALPINEÆ.

1. **Peltophorum ferrugineum,** *Benth. Fl. Austral.* ii. p. 279; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 257.

HAINAN (*B. C. Henry*!). Herb. Kew.

Generally dispersed in tropical Asia, and extending to North Australia.

1. **Mezoneurum sinense,** *Hemsl.*, n. sp.

*Frutex* scandens, ramis rhachidibusque aculeis brevibus recurvis armatis, novellis ferrugineo-pubescentibus. *Folia* bipinnata, usque ad 18 poll. longa et 12 poll. lata, pinnis sæpius 3- vel 4-jugis; foliola sæpius trijuga, breviter petiolulata, subcoriacea, cito glabrescentia, supra nitida, subtus pallidiora, ovato-oblonga, usque ad 4 poll. longa, basi rotundata, apice acutiuscula simul apiculata, crebre venosa. *Flores* lutei, 8–10 lineas diametro, racemoso-paniculati, breviter pedicellati, paniculis axillaribus terminalibusque foliis brevioribus vel interdum longioribus tota

ferrugineo-pubescentibus; bracteæ parvæ, cito deciduæ; calycis ferrugineo-pubescentis segmenta inæqualia, infimum majus, cucullatum, cætera obovato-oblonga; petala subæqualia, apice rotundata, breviter unguiculata, sepalis parum longiora; stamina declinata, petalis longiora, filamentis infra medium dense barbatis; ovarium dense ferrugineo-pubescens. *Legumen* coriaceum vel sublignosum, venosum, subsessile, leviter obliquum, oblongum vel suborbiculatum, $1\frac{1}{2}$–$1\frac{3}{4}$ poll. longum, anguste alatum, stylo indurato 3–4 lineas longo coronatum, monospermum; semen oblongum, valde compressum, ad 9 lineas longum, fere nigrum, opacum, hilo minuto.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

Var. **parvifolium**, *Hemsl.*, foliolis minoribus 1–$1\frac{3}{4}$ poll. longa.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

In foliage this species approaches *Mezoneurum cucullatum*, Wight et Arn.; but the pod is very unlike that of all others except the Australian *M. brachycarpum*, Benth., which it closely resembles. With the exception of the very narrow wing on the upper suture of the pods, there is no character by which *M. sinense* can be distinguished from the genus *Cæsalpinia.*

1. **Cæsalpinia Bonducella,** *Fleming in Asiat. Res.* xi. p. 159; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 254; *Maxim. in Mél. Biol.* xii. p. 448; *Lour. Fl. Cochinch.* p. 265.

Guilandina Bonducella, *Linn. Sp. Pl.* ed. 2, p. 545; *Benth. Fl. Hongk.* p. 96.

Guilandina Bonduc, *Linn.*, β. minus, *DC. Prodr.* ii. p. 480.

FORMOSA (*Maries*!); KWANGTUNG: opposite Hongkong (*Lamont*!), Pakhoi (*Playfair*!); HONGKONG (*Hance*!); LUCHU ARCHIPELAGO (*Tanaka* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Throughout the tropics, especially in littoral districts.

2. **Cæsalpinia Millettii,** *Hook. et Arn. Bot. Beech. Voy.* p. 182; *Walp. Rep.* i. p. 810; *Hance in Journ. Bot.* 1870, p. 313.

CHINA: without locality (*Millet* ex *Hooker et Arnott*); KWANGTUNG: Macao (*Hance* ). Mus. Brit.; Herb. Kew.

3. **Cæsalpinia minax,** *Hance in Journ. Bot.* 1884, p. 365.

KWANGTUNG: near Shiuhing on the North river (*Graves*! *Ford*!). Mus. Brit.; Herb. Kew.

Described from specimens of plants cultivated in the Hongkong Botanic Garden.

4. **Cæsalpinia Nuga,** *Ait. Hort. Kew.* ed. 2, iii. p. 32; *DC. Prodr.* ii. p. 481; *Benth. Fl. Hongk.* p. 97; *Engler, Bot. Jahrb.* vi. p. 64; *Maxim. in Mél. Biol.* xii. p. 449.

Cæsalpinia chinensis, *Roxb. Fl. Ind.* ii. p. 361; *Hook. et Arn. Bot. Beech. Voy.* p. 182; *Walp. Rep.* i. p. 210; *Seem. Bot. Voy. 'Herald,'* p. 375.

Cæsalpinia paniculata, *Desf. Cat. Hort. Par.* ed. 2, p. 210; *DC. Prodr.* ii. p. 481.

Fokien: Amoy (*Fortune*, 123!); Formosa: Tamsui (*Oldham*, 184!); Kwangtung (*Tate*!); Hongkong (*Hinds*! *Wilford*! *Wright*! *Champion*! and others). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia, and extending to Polynesia and North Australia.

5. **Cæsalpinia pulcherrima,** *Swartz, Obs.* p. 166; *DC. Prodr.* ii. p. 284; *Lour. Fl. Cochinch.* p. 261; *Bretschn. Early Res.* p. 148; *Maxim. in Mél. Biol.* xii. p. 448; *Engl. Jahrb.* vi. p. 64.

China, commonly cultivated and wild in some localities; Luchu Archipelago (*Tanaka* ex *Maximowicz*).

Generally cultivated in tropical countries, and native country uncertain.

6. **Cæsalpinia Sappan,** *Linn. Sp. Pl.* ed. 1, p. 381; *DC. Prodr.* ii. p. 482; *Hance in Journ. Bot.* 1878, p. 10; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 255.

Kwangtung: Kowlung (*Lamont*!). Mus. Brit.

Tropical India and Malaya.

7. **Cæsalpinia sepiaria,** *Roxb. Fl. Ind.* ii. p. 360; *Walp. Rep.* i. p. 810; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 256; *Hance in Journ. Bot.* 1882, p. 5; *Maxim. Fl. As. Or. Fragm.* p. 5.

China: without locality (*Carles*!); Chekiang: Ningpo (*Everard*! *Hancock*!); Kiangsi: Kiukiang (*Shearer*!); Hupeh: Ichang (*A. Henry*!); Shensi (*Piasezki* ex *Maximowicz*); Hainan (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia; also found in Madagascar, and colonized in America.

8. **Cæsalpinia vernalis,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 77; *Walp.* iv. p. 590; *Benth. Fl. Hongk.* p. 97.

HONGKONG (*Wright*! *Champion*! *Wilford*! *Lamont*! *Forbes*!). Mus. Brit.; Herb. Kew.

1. **Pterolobium punctatum**, *Hemsl.*, n. sp.

*Frutex* scandens, puberulus, ramulis rhachidibusque foliorum aculeis brevibus recurvatis armatis. *Folia* bipinnata, 6–12 poll. longa et 3–4 poll. lata, pinnis usque ad 18-jugis oppositis; foliola multijuga (ad 25) brevissime petiolulata, crassiuscula, distincte crebreque pellucido-punctata, glabra vel cito glabrescentia, leviter oblique oblonga, circiter 3–4 lineas longa, apice rotundata simul apiculata; rhachis pilosula. *Flores*, ut videtur, albi, parvi (petala vix $2\frac{1}{2}$ lineas longa), densiuscule racemoso-paniculati, paniculis axillaribus vel terminalibus foliis longioribus pilosulis, pedicellis floribus brevioribus; calycis lobi oblongi, petaloidei, extus parce puberuli, pellucido-punctati, petalis parum breviores; petala oblongo-obovata, pellucido-punctata; filamenta parce hirsuta; ovarium 2-ovulatum, pubescens. *Legumen* sessile, glabrescens, $1\frac{1}{2}$–2 poll. longum, semi-oblongum vix obliquum, monospermum; semen pendulum, ovoideum, valde compressum, atrum, opacum.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

This differs from *P. indicum* in having numerous leaflets and relatively small flowers, and from *P. subvestitum* in having glabrous, distinctly punctate leaflets, and a shorter denser inflorescence &c.

2. **Pterolobium subvestitum**, *Hance in Journ. Bot.* 1884, p. 365.

Pterolobium indicum, *Hance in Journ. Bot.* 1883, p. 297?

CHINA: without locality (*Millet*!); KWANGTUNG: Lofaushan (*Ford*!), on the banks of the Lienchan (*B. C. Henry*?). Mus. Brit.; Herb. Kew.

This species is easily recognized by its large loose inflorescence and long, almost filiform pedicels. The fruit-bearing specimens collected by B. C. Henry are probably the same species, but there is no foliage with the fruit; therefore it remains uncertain.

Wallich's 5841, H. and I., from Tavoy, is the same or a closely allied species.

1. **Gymnocladus chinensis**, *Baill. in Compt. Rend. Assoc. Franç. pour l'Avanc. Sc.* 1874, p. 418, t. 4, *Bull. Soc. Linn. Par.* 1875,

p. 33, et *Dict. Bot.* i. p. 781, sub *Chicot*; *Oliver in Hook. Ic. Pl.* xv. p. 9, t. 1412; *Bretschn. Notes on Bot. Quest. Exp. Trade China*, p. 14; *Hanb. Sc. Pap.* p. 238, fig. 5 (Dialium ?).

ANWHEI: Wuhu (*Bullock*, hb. *Hance*!); CHEKIANG: near Ningpo (*Forbes*! *Carles*!), Waikung (*Bourne*!); KIANGSI: Kiukiang (*Shearer*! *Maries*!); HUPEH: Ichang and Nanto (*A. Henry*!) Mus. Brit.; Herb. Kew.

This is the Soap-tree, the Fei-tsao-tou, or fat black bean of the Chinese, used by women in washing their head and hair. Baillon records it as growing abundantly in the neighbourhood of Shanghai; but we have seen no specimens from that part. Bretschneider states that the seeds are taken from Szechuen and Kiangsi to Kiukiang and Hankow. The oldest specimen in the Kew Herbarium was collected in 1873 by Dr. Shearer, and is accompanied by his general label "Kiukiang" and a supplementary one bearing the inscription "Soap-tree, Fuy tsow, Wuchanglin."

Dr. A. Henry's Hupeh specimens are very fine, and include leaves upwards of 2 feet long. He states that it occurs at the first rapids at Nanto.

1. **Gleditschia australis**, *Hemsl.*, n. sp. (Plate V.)

*Arbor* ramulis floriferis glabris vel citissimo glabrescentibus. *Folia* pinnata vel bipinnata, breviter petiolata; foliola numerosa, sessilia, subcoriacea (ut videtur discoloria), supra nitida, oblique oblonga, 1–2 poll. longa, sæpius emarginata, crenata, venis laxiuscule reticulatis. *Flores* ♂ parvi, puberuli, racemoso-paniculati, racemis foliis brevioribus. *Flores* ♀ . . . . . *Legumen* sessile, 4–5 poll. longum et 1 poll. latum, coriaceum, glaucum, demum nitidum, valde compressum, bullatum, sæpius curvatum vel leviter flexuosum, nec tortum, circiter 12-spermum; semina confertissima, oblonga, fere teretia, circiter semipollicaria, lævia, glabra, pallide fusca.—*G. sinensis*, auctorum plurimorum, nec Lam.

SOUTH CHINA: without locality (*Beechey*!); HONGKONG (*Ford*! *Hance*, 18780!). Mus. Brit.; Herb. Kew.

A specimen in the Paris Herbarium from Tonquin is probably this species.

We are in doubt whether the *G. sinensis* of Bentham's 'Flora Hongkongensis' should be referred here; but it certainly is not

true *sinensis*. The leaves are mostly rhomboido-falcate and acute, and the male flowers are borne in long unbranched racemes.

The Asiatic species of *Gleditschia* are very much confused in books and herbaria; and Maximowicz's synopsis of the species, cited below, is incomplete and inaccurate in some particulars. Yet, while there is no doubt that our *G. australis* is a species distinct from the northern ones, it is not possible, with the material available, to determine how many species the specimens represent; therefore the following arrangement can only be regarded as provisional.

2. **Gleditschia heterophylla**, *Bunge, Enum. Pl. Chin. Bor.* p. 21; *Franchet, Pl. David.* p. 102, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 214; *Maxim. in Mél. Biol.* xii. p. 454.

CHIHLI: near Peking (*Bunge*! *Tatarinow*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*). Mus. Brit.; Herb. Kew.

At Kew and in Hance's herbarium (British Museum) are specimens of foliage and male flowers of the same or a closely allied species of *Gleditschia* cultivated in the Hongkong Botanic Garden.

[Maximowicz (in Mél. Biol. xii. p. 452) records *Gleditschia japonica*, Miq., from Shanghai, collected by Forbes; but we refer these specimens, provisionally, to *G. sinensis*.]

3. **Gleditschia macracantha**, *Desf. Hist. d'Arb.* ii. p. 247.

Gleditschia Fontanesii, *Spach. Hist. Veg.* i. p. 95.

This is generally treated as a variety of *G. sinensis*, which it may be; but besides its larger spines and leaflets, it differs in having a very hairy ovary, a long, straight, flat, nearly sessile pod, and nearly quadrate, flat seeds, about a third of an inch long. The specimens we have seen of this form were cultivated some in Calcutta, others in St. Helena, and others in Europe. Herb. Kew.

4. **Gleditschia sinensis**, *Lam. Encycl.* ii. p. 465; *DC. Prodr.* ii. p. 479; *Bunge, Enum. Pl. Chin. Bor.* p. 21.

Gleditschia xylocarpa, *Hance in Journ. Bot.* 1884, p. 366; *Maxim. Mél. Biol.* xii. p. 454.

Gymnocladus Williamsii, *Hance, loc. cit.*

CHIHLI: near Peking (*Bunge*!); KIANGSU: Shanghai (*Maingay*! *Carles*!); CHEKIANG: Ningpo (*Cooper*!). Mus. Brit.; Herb. Kew.

Lamarck founded this species on specimens cultivated in France; but he had no flowers, and had seen neither pods nor seeds. He states that it was said to have been raised from seeds received from China, and that it had somewhat cylindrical pods and spherical seeds. The only pod and seeds at all answering to this description that we have seen are in the Kew Herbarium, sent from Peking by Dr. Bretschneider; and they may belong to *Gymnocladus* rather than *Gleditschia*. He also sent, on another occasion, a barren shoot named *G. sinensis*, which has a somewhat different appearance from anything else. Bunge's Peking specimens agree exactly with specimens of Lamarck's plant cultivated by Gay; and we have little doubt that Hance's plants cited above are of the same species. The female flowers are exactly alike, and the differences in the foliage of the various specimens are trifling; while the large woody, usually curved, long-stalked pod is much more compressed than the one from Bretschneider, and the seeds are oblong.

In addition to the foregoing, there is a species of *Gleditschia* in the Kew Herbarium from Shingking, collected by Ross, with inconspicuously veined leaflets and a thin, somewhat curved stipitate pod about 10 inches long, containing ovate compressed seeds; and in the Museum are similar, though straight, pods from Fusi Yama, in Japan, collected by Oldham. Including the stipes, these pods are a foot long.

1. **Cassia glauca**, *Lam. Encycl.* i. p. 647; *DC. Prodr.* ii. p. 495; *Benth. in Trans. Linn. Soc.* xxvii. p. 555; *Maxim. in Mél. Biol.* xii. p. 455.

Cassia suffruticosa, *Kœn. in Roth, Nov. Sp. Pl.* p. 213.

Cassia Horsfieldii, *Miq. Fl. Ind. Bat.* i. 1. p. 99, et *in Journ. de Bot. Néerl.* i. p. 123.

South China (*Millett*!); Hongkong (*Wilford*! *Urquhart*!). Herb. Kew.

A native of tropical Asia and Australia, often cultivated, and perhaps not indigenous in China.

[*Cassia bicapsularis*, Linn., an American species, is commonly cultivated and colonized in other countries including China. Millett collected it at Macao. Bentham (Trans. Linn. Soc. xxvii. p. 525) suggests that *C. chinensis*, Lam., was a compound of this and *C. Sophera*, Linn.]

2. **Cassia mimosoides**, *Linn. Sp. Pl.* ed. 1, p. 379; *DC. Prodr.*

ii. p. 503; *Benth. Fl. Hongk.* p. 98, et *in Trans. Linn. Soc.* xxvii. p. 578.

Cassia procumbens, *Lour. Fl. Cochinch.* p. 264, non *Linn.*; *Bretschn. Early Res.* p. 148.

CHINA: common from Peking southward (*Bretschneider*! *Oldham*! *Millett*! *Parker*! and others). Mus. Brit.; Herb. Kew.

Almost universal in tropical countries, and extending into some temperate regions, as Japan.

3. **Cassia nictitans**, *Linn. Sp. Pl.* ed. 1, p. 380; *DC. Prodr.* ii. p. 503; *Hance in Journ. Linn. Soc.* xiii. p. 79; *Benth. in Trans. Linn. Soc.* xxvii. p. 578.

CHIHLI: near Peking (*Williams*! *Tatarinow*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Central America, West Indies, and eastern United States, northward to New England.

4. **Cassia occidentalis**, *Linn. Sp. Pl.* ed. 1, p. 337; *DC. Prodr.* ii. p. 497; *Benth. Fl. Hongk.* p. 98, et *in Trans. Linn. Soc.* xxvii. p. 532; *Miq. in Journ. de Bot. Néerl.* i. p. 123.

SOUTH CHINA: common (*Hance*! *Oldham*! *Playfair*! *Hancock*! *Lamont*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and America; probably colonized from America in the Old World, according to Bentham.

5. **Cassia Sophera**, *Linn. Sp. Pl.* ed. 1, p. 379; *Lour. Fl. Cochinch.* p. 264; *DC. Prodr.* ii. p. 492; *Benth. in Trans. Linn. Soc.* xxvii. p. 532.

Cassia chinensis, *Jacq. Coll.* i. p. 64, et *Ic. Pl. Rar.* t. 73.

Chamæfistula chinensis, *G. Don, Gen. Syst.* ii. p. 452.

Cassia torosa, *Cav. Descr.* p. 131; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471.

CHIHLI: Peking (*Bretschneider*!); HAINAN (*Hancock*!). Herb. Kew.

Very widely spread in tropical and subtropical regions, but usually as a weed of cultivation.

6. **Cassia Tora**, *Linn. Sp. Pl.* ed. 1, p. 376; *DC. Prodr.* ii. p. 493; *Miq. in Journ. de Bot. Néerl.* i. p. 123; *Benth. Fl. Hongk.* p. 98, et *in Trans. Linn. Soc.* xxvii. p. 535.

Cassia obtusifolia, *Linn. Sp. Pl.* ed. 1, p. 377; *Lour. Fl. Cochinch.* p. 263.

FORMOSA (*Oldham*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Hance*!); HAINAN (*Hancock*!). Mus. Brit.; Herb. Kew.

Generally diffused in the tropics, and extending as far north in America as South Carolina.

1. **Bauhinia acuminata**, *Linn. Sp. Pl.* ed. 1, p. 375; *DC. Prodr.* ii. p. 513; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 276.

CHINA: without locality (*Millett*!). Herb. Kew.

India and Malaya.

2. **Bauhinia Championi**, *Benth. Fl. Hongk.* p. 99; *Hance in Journ. Bot.* 1883, p. 298; *Maxim. in Mél. Biol.* ix. p. 74.

Phanera Championi, *Benth. in Hook. Kew Journ. Bot.* iv. p. 78.

CHINA: without locality (*Millett*!); FOKIEN: Amoy (*Swinhoe*!); KWANGTUNG: Lofaushan (*Ford*!), Lienchau river (*B. C. Henry*!); HONGKONG (*Hinds*! *Wright*! *Champion*!). Mus. Brit.; Herb. Kew.

3. **Bauhinia corymbosa**, *Roxb. Fl. Ind.* ii. p. 329; *DC. Prodr.* ii. p. 515, non *DC. Mém. Legum.* t. 70, ex *Hook. f. in Bot. Mag.* t. 6621.

CHINA: without locality (*Millett*!); KWANGTUNG (*Tate*!); HONGKONG (*Champion*!). Herb. Kew.

4. **Bauhinia glauca**, *Wall. Cat.* n. 5785; *Benth. Fl. Hongk.* p. 99; *Miq. Fl. Ind. Bat.* i. p. 68, t. 2; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 282.

Phanera glauca, *Benth. Pl. Jungh.* i. p. 265.

Phanera corymbosa, *Benth. in Hook. Kew Journ. Bot.* iv. p. 77, excl. synon.

HUPEH: Ichang (*A. Henry*!); HONGKONG (*Wilford*! *Wright*! *Urquhart*! *Champion*!). Mus. Brit.; Herb. Kew.

Malayan peninsula and archipelago.

*B. parvifolia*, Teysm. et Binnend. (Natur. Tijdschr. voor Nederl. Ind. xxix. p. 257), treated as a variety of this by Baker (in Hook. f. Fl. Brit. Ind. ii. p. 283), is perhaps *B. corymbosa*; but we have seen no pod.

5. **Bauhinia racemosa**, *Lam. Encycl.* i. p. 390; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 276; *Hook. Ic. Pl.* t. 141.

Bauhinia parviflora, *Vahl, Symb.* iii. p. 55.

CHINA: without locality (*Millett*!); KWANGTUNG: Macao (*Calléry*!). Herb. Kew.

India and the Malayan archipelago to Timor.

6. **Bauhinia variegata**, *Linn. Sp. Pl.* ed. 1, p. 375; *DC. Prodr.* ii. p. 514 (*β. chinensis*); *Hook. et Arn. Bot. Beech. Voy.* p. 183; *Braam, Ic. Chin.* t. 26; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 284.

Phanera variegata, *Benth. Pl. Jungh.* i. p. 262.

Bauhinia chinensis, *Vogel in Nov. Act. Nat. Cur.* xix. *Suppl.* i. p. 42.

HONGKONG (*Urquhart*! *Wright*!). Herb. Kew.

India and Birma.

The specimens in the Kew Herbarium formerly referred to *B. tomentosa*, Linn., belong to this species.

[*Bauhinia retusa*, Roxb., and *B. scandens*, Linn., are enumerated by Hooker and Arnott (Bot. Beech. Voy. p. 183); but the names were given to the merest fragments, which do not exist in the Kew Herbarium.]

7. **Bauhinia**, sp.

SZECHUEN (*Parker*, hb. *Hance*, 21782 !). Mus. Brit.

1. **Cercis chinensis**, *Bunge, Enum. Pl. Chin. Bor.* p. 21; *Walp. Rep.* i. p. 808; *Franch. et Sav. Enum. Pl. Jap.* i. p. 116.

CHIHLI: near Peking (*Bunge*! *Bushell*! *Bretschneider*!); KIANGSU: Fengwangshan and Shanghai (hb. *Forbes*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Japan, though probably introduced from China.

In a note accompanying Dr. Henry's specimens he states that this is a valuable timber tree, fifty feet high, with a trunk sometimes twelve feet in girth. He sends pods, which are exactly like those of *Circis Siliquastrum*. *C. canadensis* has less deeply cordate leaves and less acuminate pods, but there are no other obvious differences. It is noteworthy that the pod of the Californian *C. occidentalis* closely resembles that of the Afghan *C. Griffithii*.

1. **Lysidice rhodostegia**, *Hance in Journ. Bot.* 1867, p. 299, 1873, p. 207, et 1883, p. 298; *Oliver in Hook. Ic. Pl.* xii. p. 80, t. 1192.

KWANGTUNG: on steep rocky banks of the West river (*Sampson*! *Hance*, 12155! *Ford*!). Mus. Brit.; Herb. Kew.

1. **Tamarindus indica**, *Linn. Sp. Pl.* ed. 1, p. 34; *DC. Prodr.* ii. p. 488; *Hance in Journ. Bot.* 1883, p. 298; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 273.

Tamarindus officinalis, *Hook. Bot. Mag.* t. 4563.

HAINAN: Hoihau (*Bullock*!). Mus. Brit.

Widely spread in the tropics of the Old World and extending to North Australia.

1. **Erythrophlœum Fordii**, *Oliver in Hook. Ic. Pl.* xv. p. 7, t. 1409.

KWANGTUNG: Loting river (*Ford*!). Mus. Brit.; Herb. Kew.

## 46. LEGUMINOSÆ: MIMOSEÆ.

1. **Entada scandens**, *Benth. in Hook. Journ. Bot.* iv. p. 332, et *in Trans. Linn. Soc.* xxx. p. 363.

Entada Gigalobium, E. Pursætha, E. monostachya, *et* E. Adenanthera, *DC. Prodr.* ii. pp. 424, 425.

HAINAN (*B. C. Henry*!). Herb. Kew.

Very widely dispersed in tropical regions of both hemispheres.

1. **Adenanthera pavonina**, *Linn. Sp. Pl.* ed. 1, p. 384; *DC. Prodr.* ii. p. 446; *Hance in Journ. Linn. Soc.* xiii. p. 202; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 287.

KWANGTUNG: Tingushan (*Sampson*, hb. *Hance*, 1947!); HONGKONG (*Urquhart*! *Ford*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Mascarene Islands, and North Australia.

1. **Desmanthus virgatus**, *Willd. Sp. Pl.* iv. p. 1047; *DC. Prodr.* ii. p. 445; *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 290; *Benth. in Trans. Linn. Soc.* xxx. p. 385.

HONGKONG (*Hance*, 1057!). Mus. Brit.

A common plant in tropical and subtropical America, probably a colonist in Asia and Africa.

1. **Mimosa sepiaria**, *Benth. in Hook. Journ. Bot.* iv. p. 395, et *in Trans. Linn. Soc.* xxx. p. 423.

CHINA: without locality (*Fortune*, 17!). Mus. Brit.; Herb. Kew.

A native of tropical America; also found in Malaya, where, as well as in China, Bentham was of opinion it had been introduced.

1. **Leucæna glauca**, *Benth. in Hook. Journ. Bot.* iv. p. 416; *Fl. Hongk.* p. 100, et *in Trans. Linn. Soc.* xxx. p. 443.

CHINA: without locality (*Millett*!); HONGKONG (*Urquhart*! *Wright*! *Wilford*!). Mus. Brit.; Herb. Kew.

Now widely spread in the warm regions; and Bentham says probably of North-American origin.

1. **Acacia concinna**, *DC. Prodr.* ii. p. 464; *Benth. Fl. Hongk.* p. 101, et *in Trans. Linn. Soc.* xxx. p. 531.

Acacia philippinarum, *Benth. in Hook. Lond. Journ. Bot.* i. p. 514.

Arthrosprion stipulatum, *Hassk. in Retzia*, i. p. 212, *sed non* Albizzia stipulata, *Benth.*

KWANGTUNG: near the top of Mount Pakwan (*Hance*, 1827!); HONGKONG (*Hance*, 1827! *Wright*!); HAINAN (*B. C. Henry*!). Mus. Brit.; Herb. Kew.

Tropical Asia.

2. **Acacia Farnesiana**, *Willd. Sp. Pl.* iv. p. 1083; *DC. Prodr.* ii. p. 461; *Benth. Fl. Hongk.* p. 101, et *in Trans. Linn. Soc.* xxx. p. 502.

FORMOSA (*Oldham*, 192!); KWANGTUNG: Macao (*Tate*!); HONGKONG (*Hance*!). Mus. Brit.; Herb. Kew.

Very widely spread in tropical and subtropical regions, in many places doubtless an escape from cultivation.

3. **Acacia Richii**, *A. Gr. Bot. Wilkes's U.S. Expl. Exped.* i. p. 482; *Seem. Fl. Vit.* p. 73; *Benth. in Trans. Linn. Soc.* xxx. p. 482.

FORMOSA: south-west (*Swinhoe*!), Tamsui (*Oldham*, 193!), Kelung (*Ford*!). Mus. Brit.; Herb. Kew.

Fiji Islands.

So far as flowering specimens go, we can detect no differences between the Fiji and Formosa plants. The leaves (phyllodes) exhibit the same variations in both countries. There is one imperfect pod in the Kew Herbarium from Fiji, but none from Formosa. Ford notes that he was informed by a native of Formosa that it grows to an enormous size in the mountains of the aborigines' country.

1. **Albizzia Julibrissin**, *Durazz. in Mag. Tosc.* iii. pars 4 (1772), p. 11, ex *F. Muell. in Journ. Bot.* 1872, p. 7; *Benth. in Trans. Linn. Soc.* xxx. p. 568; *Debeaux, Fl. Tchef.* p. 52, et *Fl. Shangh.* p. 29; *Franchet, Pl. David.* p. 102.

Acacia Nemu, *Willd. Sp. Pl.* iv. p. 1065; *Bretschn. Early Res.* p. 148.

Mimosa arborea, *Thunb. Fl. Jap.* p. 229; *Lour. Fl. Cochinch.* p. 651; *Bretschn. Early Res.* p. 148.

CHIHLI: near Peking (*Bushell*! *Bretschneider*!); KIANGSU: Shanghai (*Maingay*!); FOKIEN: Amoy (*Fortune*, 100!); HUPEH: Ichang (*A. Henry*!); also recorded from many other parts of China. Mus. Brit.; Herb. Kew.

Persia to Japan, and in eastern tropical Africa. Cultivated and colonized in other countries.

2. **Albizzia Lebbek**, *Benth. in Hook. Lond. Journ. Bot.* iii. p. 87, et *in Trans. Linn. Soc.* xxx. p. 562.

Acacia Lebbek, *Willd. Sp. Pl.* iv. p. 1066; *DC. Prodr.* ii. p. 466.

Mimosa speciosa, *Jacq. Ic. Pl. Rar.* t. 198.

Acacia macrophylla, *Bunge, Enum. Pl. Chin. Bor.* p. 20.

CHIHLI: near Peking (*Bunge*! *Bretschneider*!); SHANTUNG: Chefoo (*Hancock*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Tropical and temperate Asia and Africa, though often planted. Introduced in the New World.

3. **Albizzia Millettii**, *Benth. in Hook. Lond. Journ. Bot.* iii. p. 89; *Fl. Hongk.* p. 102, et *in Trans. Linn. Soc.* xxx. p. 565; *Hance, in Journ. Linn. Soc.* xiii. p. 102.

Mimosa corniculata, *Lour. Fl. Cochinch.* p. 651, ex descr. fide *Benth. in Trans. Linn. Soc.* xxx. p. 565.

Cæsalpinia lebbekkoides, *DC. Prodr.* ii. p. 483.

CHINA: without locality (*Staunton*!); KWANGTUNG: Macao (*Calléry*! *Millett*!); HONGKONG (*Wright*! *Hance*! *Lamont*!). Mus. Brit.; Herb. Kew.

4. **Albizzia stipulata**, *Boiv. in Encycl.* xix. *Siècle*, 2, ex *Benth. in Trans. Linn. Soc.* xxx. p. 568; *Fl. Hongk.* p. 102.

HONGKONG (*Hance*!); HAINAN (*B. C. Henry*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical and subtropical Asia.

1. **Pithecolobium Clypearia**, *Benth. in Hook. Lond. Journ. Bot.* iii. p. 209; *Fl. Hongk.* p. 103, et *in Trans. Linn. Soc.* xxx. p. 580.

Inga dimidiata, *Hook. et Arn. Bot. Beech. Voy.* p. 181.

South China: without locality (*Millett*!); Hongkong (*Hance*, 1177! *Wright*! *Urquhart*! *Lamont*!); Hainan (*Swinhoe*! *B. C. Henry*!). Mus. Brit.; Herb. Kew.

Malay peninsula and archipelago.

[*Inga dulcis*, Willd. (*Hook. et Arn. Bot. Beech. Voy.* p. 181), *Pithecolobium dulce*, Benth., is an American species, cultivated and colonized in the Old World; but there is no specimen at Kew or the British Museum from China.]

2. **Pithecolobium lucidum**, *Benth. in Hook. Lond. Journ. Bot.* iii. p. 207; *Fl. Hongk.* p. 102, et *in Trans. Linn. Soc.* xxx. p. 577.

Inga bigemina, *Hook. et Arn. Bot. Beech. Voy.* p. 182, non *Willd.*

Albizzia Championi, *Benth. in Hook. Kew Journ. Bot.* iv. p. 79.

China: without locality (*Beechey*!); Formosa (*Oldham*, 197!); Kwangtung: about ten miles north of Canton (*B. C. Henry*, hb. *Hance*, 1195!); Hongkong (*Wilford*! *Wright*! *Hance*, 1195! *Champion*!). Mus. Brit.; Herb. Kew.

## 47. ROSACEÆ: Pruneæ.

1. **Prunus** (§ **Armeniaca**) **Armeniaca,** *Linn. Sp. Pl.* ed. 1, p. 474; *Maxim. in Mél. Biol.* xi. p. 673; *Franchet, Pl. David.* p. 104; *Bretschn. Stud. & Val. Chin. Works on Bot.* p. 10; *DC. Orig. Pl. Cult.* p. 173.

Armeniaca vulgaris, *Lam. Encycl.* i. p. 2; *DC. Prodr.* ii. p. 532.

Chihli; mountains near Peking (*Bretschneider*); Shingking: Fungwangshan (*Ross*!). Herb. Kew.

The Apricot is regarded as indigenous in Dahuria, Mongolia, Mandshuria, and Northern China.

In the Kew Herbarium is a specimen of an *Armeniaca* from the Soul Mountains, Corea, collected by Carles, which has exactly the foliage of *Prunus sibirica*, Linn. (regarded by Maximowicz as a variety of *P. Armeniaca*); but the distinctly pedunculate flowers are in threes, the bracts are early deciduous, and the large calyx is coloured.

[Loureiro (Fl. Cochinch. p. 316) states that the Almond (*Prunus Amygdalus*, Baill., *Amygdalus communis*, L.) is both wild and cultivated in China; and Bunge says that it is commonly cultivated in North China; but recent botanists have not seen it

in South China, and the one cultivated near Peking is *P. Davidiana,* a variety of *P. persica.* See Bretschneider, 'Early Researches,' p. 149.]

2. **Prunus** (§ **Cerasus**) **campanulata,** *Maxim. in Mél. Biol.* xi. p. 698.

FOKIEN: without locality (*De Grijs*, hb. *Hance*, 7046!). Mus. Brit.; Herb. Kew.

[*Prunus Cerasus,* Linn., the Cherry, is enumerated by Maximowicz (Ind. Fl. Pek.), perhaps by mistake, as he does not include it in his monograph of the eastern Asiatic species of *Prunus.* James also sends it from Shingking, where it is probably cultivated.]

3. **Prunus** (§ **Euprunus**) **communis,** *Huds. Fl. Angl.* ed. 2, p. 212; *Maxim. in Mél. Biol.* xi. p. 677.

Prunus domestica, *Linn. Sp. Pl.* ed. 1, p. 475; *Lour. Fl. Cochinch.* p. 317; *Bunge, Enum. Pl. Chin. Bor.* p. 22; *Bretschn. Early Res.* p. 149.

Prunus insititia, *Linn. Amœn. Acad.* iv. p. 273, et *Sp. Pl.* ed. 2, p. 680.

Varieties of the Plum are cultivated in China and Japan, and it occurs in a wild state on the mountains near Peking, as well as on the Tsunglin range in Shensi and Kansuh. Where it is really indigenous is uncertain.

Maximowicz adopts Hudson's name; yet from a citation (*op. cit.* p. 678) he appears to regard *P. insititia* as specifically distinct from *P. domestica.*

4. **Prunus** (§ **Cerasus**) **hirtipes,** *Hemsl.*, n. sp.

*Rami* floriferi crassi, glabri. *Folia* hysteranthia non visa. *Gemmæ* laterales 4–6-floræ, bracteis numerosis latis, exterioribus coriaceis glabris, interioribus tenuioribus plus minusve hirsutis; pedunculi graciles, breviter exserti, longe patentim hirsuti; calyx extus patentim hirsutus simul glandulosus, intus glaber, lobis ovato-oblongis integris vix acutis tubo dimidio brevioribus; petala obovata, emarginata vel bifida, venosa, circiter 5 lineas longa; ovarium atque stylus elongatus glabrum, stigmate capitato.

KIANGSI: Kiukiang (*Maries*!). Herb. Kew.

This is so distinct from every other species we have seen or know from description, that we have ventured to describe it in the absence of leaves.

5. **Prunus** (§ **Cerasus**) **humilis,** *Bunge, Enum. Pl. Chin. Bor.* p. 23; *Maxim. in Mél. Biol.* xi. p. 682, et *Fl. As. Or. Fragm.*

p. 11; *Bretschn. Early Res.* p. 31; *Hance in Journ. Bot.* 1875, p. 131; *Debeaux, Fl. Tchef.* p. 52; *Franchet, Pl. David.* p. 104.

Prunus japonica, *Carr. Rev. Hort.* 1873, p. 457, fig. 41, non *Thunb.*

Prunus Bungei, *Walp. Rep.* ii. p. 9.

CHIHLI: various localities near Peking (*Bunge! Bretschneider!*); Jehol (*David*, 1719!); SHANTUNG: near Chefoo (*Wawra* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

6. **Prunus** (§ **Cerasus**) **japonica**, *Thunb. Fl. Jap.* p. 201; *Sieb. et Zucc. Fl. Jap.* i. p. 172, t. 90; *Maxim. Fl. As. Or. Fragm.* p. 12, et *in Mél. Biol.* xi. p. 684 (varietates); *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381; *Bot. Reg.* t. 27 (var. floribus plenis).

Prunus glandulosa, *Thunb. Fl. Jap.* p. 203, quoad plantam florentem, fide *Maxim.*

Cerasus japonica *et* C. glandulosa, *Loisel. in Nouv. Duham.* v. p. 33; *DC. Prodr.* ii. pp. 538 et 539.

Prunus sinensis, *Pers. Syn. Pl.* ii. p. 36.

Prunus chinensis, *Blume, Bijdr.* p. 1104?

Amygdalus pumila, *Sims in Bot. Mag.* t. 2176, nec *Lour.*

SHINGKING: various localities (*Ross!*); CHEKIANG: Ningpo (*Everard!*); KIANGSU: Chinkiang (*Maries!*); FOKIEN: Foochow (*Perry!*); HUPEH: Ichang (*A. Henry!*); SHENSI (*Piasezki* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Japan.

Fortune's no. 13, without locality, is a double-flowered variety of this, probably obtained from a garden.

7. **Prunus** (§ **Laurocerasus**) **macrophylla**, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* p. 14; *Hance in Journ. Bot.* 1878, p. 87; *Maxim. in Mél. Biol.* xi. p. 710.

Prunus oxycarpa, *Maxim. in Mél. Biol.* xi. p. 710.

Pygeum oxycarpum, *Hance in Journ. Bot.* 1870, p. 242.

KWANGTUNG: Pakwan Hills (*Sampson & Hance*, 16424!); LUCHU ARCHIPELAGO (*Wright!*). Mus. Brit.; Herb. Kew.

8. **Prunus** (§ **Cerasus**) **Maximowiczii**, *Rupr. in Bull. phys.-math. Acad. Pétersb.* xv. p. 131; *Maxim. Fl. Amur.* p. 89, et *in Mél. Biol.* xi. p. 700.

COREA: Chemulpo (*Carles!*). Herb. Kew.

Mandshuria and Japan.

The Corean specimens differ from the typical plant in having simply-toothed leaves, and there is a little doubt about their being the same species.

9. **Prunus** (§ **Laurocerasus**) **oxycarpa**, *Maxim. in Mél. Biol.* xi. p. 710.

Pygeum oxycarpum, *Hance in Journ. Bot.* 1870, p. 242.

KWANGTUNG: Mount Pakwan (*Hance*, 16424!), near the White Cloud Monastery (*Sampson*, 1607!). Mus. Brit.; Herb. Kew.

10. **Prunus** (§ **Padus**) **Padus**, *Linn. Sp. Pl.* ed. 1, p. 473; *Maxim. in Mél. Biol.* xi. p. 705; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381 (var. pubescens, *Regel*); *Franchet, Pl. David.* p. 106.

Cerasus Padus, *DC. Prodr.* ii. p. 539.

CHIHLI: Pohuashan (*Bretschneider*!), Jehol (*David*, 1707!); SHINGKING: Jienchang (*Ross*!), Moukden (*Ross*!), Peiling (*Webster*!). Herb. Kew.

Western Europe to Japan.

11. **Prunus** (§ **Cerasus**) **pauciflora**, *Bunge, Enum. Pl. Chin. Bor.* p. 23; *Walp. Rep.* ii. p. 9; *Maxim. in Mél. Biol.* xi. p. 694.

CHIHLI: Zuiweyshan (*Bunge*), everywhere in the mountains around Peking (*Tatarinow* ex *Maximowicz*), mountains west of Peking (*Bretschneider* ex *Maximowicz*).

12. **Prunus** (§ **Amygdalus**) **persica**, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* p. 14; *Maxim. in Mél. Biol.* xi. p. 666 (varietates); *Baker in Hook. f. Fl. Brit. Ind.* ii. p. 313.

Amygdalus persica, *Linn. Sp. Pl.* ed. 1, p. 472; *Bunge, Enum. Pl. Chin. Bor.* p. 22; *Bretschn. Study of Chin. Bot. Works*, p. 10, et *Early Res.* p. 149; *DC. Orig. Pl. Cult.* p. 176.

Prunus Davidiana, *Franchet, Pl. David.* p. 103.

Persica vulgaris, *Mill. Dict.* no. 1; *DC. Prodr.* ii. p. 531.

Persica Davidiana, *Carr. in Rev. Hort.* 1872, p. 74, cum fig.

Amygdalus communis, *Bunge, Enum. Pl. Chin. Bor.* p. 21, nec *Linn.*

The Peach is cultivated throughout China, and a wild form (*P. Davidiana*) is common on the mountains near Peking and elsewhere. Indeed DeCandolle regards China as the native country of the Peach, and Bretschneider thinks he may be right. Mus. Brit.; Herb. Kew.

[*Amygdalus dasylepis*, Miq. (in Journ. Bot. Néerl. i. p. 122), collected in Kwangtung by Krone, is probably a variety of the Peach.]

[We have seen no specimen of *Amygdalus cordifolia*, Roxb. (Fl. Ind. ii. p. 500), recorded as Chinese, and described as a large, much-branched tree, commonly cultivated near Calcutta for its small yellow succulent acid fruit.]

13. **Prunus** (§ **Cerasus**) **pogonostyla**, *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 11, et *in Mél. Biol.* xi. p. 682.

Prunus, sp., *Hance in Journ. Bot.* 1875, p. 131; quoad pl. Grijsi.

Celtis caudata, *Hance in Ann. Sc. Nat.* 5e série, v. p. 241.

FOKIEN: Amoy (*De Grijs*, hb. *Hance*, 10130!); FORMOSA: Tamsui (*Oldham*, 105 and 511!). Mus. Brit.; Herb. Kew.

14. **Prunus** (§ **Cerasus**) **Pseudo-Cerasus**, *Lindl. in Trans. Hort. Soc. Lond.* vi. p. 90; *Baker et S. Moore in Journ. Linn. Soc.* xvi. p. 381; *Maxim. in Mél. Biol.* xi. p. 695 (varietates).

Prunus paniculata, *Ker, Bot. Reg.* t. 800, non *Thunb.*

Prunus serrulata, *Lindl. in Trans. Hort. Soc. Lond.* vii. p. 238 (=γ. Sieboldi, *Maxim.*).

Cerasus serrulata, *G. Don in Loud. Arb. et Frut. Brit.* ii. p. 701, fig. 407.

Cerasus Sieboldtii, *Carr. in Rev. Hort.* 1866, p. 371, cum ic. col.

SHINGKING: mountains north of Saimaji (*Ross*!); KIANGSI: Kiukiang (*Maries*!). Herb. Kew.

Mandshuria, Sachalin, and Japan.

15. **Prunus** (§ **Laurocerasus**) **punctata**, *Hook. f. Fl. Brit. Ind.* ii. p. 317.

Pygeum phæostictum, *Hance in Journ. Bot.* 1870, p. 72, et *in Journ. Linn. Soc.* xiii. p. 102.

Prunus phæosticta, *Maxim. in Mél. Biol.* xi. p. 708.

KWANGTUNG: Pakwan (*Sampson*, 1218!); HONGKONG (*Bowring*, hb. *Hance*, 6015! *Ford*!). Mus. Brit.; Herb. Kew.

Eastern India.

16. **Prunus** (§ **Euprunus**) **salicina**, *Lindl. in. Trans. Hort. Soc. Lond.* vii. p. 239; *Walp. Rep.* ii. p. 9.

CHINA: without locality (*Reeves* ex *Lindley*).

17. **Prunus** (§ **Padus**) **Ssiori**, *Schmidt, Reisen in Amur. und Sachal.* p. 124; *Baker et Moore in Journ. Linn. Soc.* xvii. p. 381; *Maxim. in Mél. Biol.* xi. p. 707.

SHINGKING: Fooling (*Ross*!); HUPEH: Ichang (*A. Henry*!). Herb. Kew.

Mandshuria, Sachalin, and Japan.

18. **Prunus** (§ **Cerasus**) **stipulacea**, *Maxim. in Mél. Biol.* xi. p. 689.

KANSUH: in the wooded alpine regions of the river Tetung (*Przewalski* ex *Maximowicz*).

19. **Prunus** (§ **Cerasus**) **tomentosa**, *Thunb. Fl. Jap.* p. 203; *Sieb. et Zucc. Fl. Jap.* i. p. 51, t. 22; *Regel, Gartenfl.* t. 853; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381; *Hook. f. Fl. Brit. Ind.* ii. p. 314; *Maxim. in Mél. Biol.* xi. p. 687, et *in Bull. Soc. Nat. Mosc.* 1879, p. 10; *Franchet, Pl. David.* p. 105.

Prunus trichocarpa, *Bunge, Enum. Pl. Chin. Bor.* p. 22; *Walp. Rep.* ii. p. 9.

CHIHLI: near Peking (*Bretschneider*! *Bunge*!); SHINGKING: Saimaji (*Ross*!), Moukden and Peiling (*Webster*!); KANSUH: shady woods in the lower region of the river Tetung (*Przewalski* ex *Maximowicz*). Herb. Kew.

North-west India and Japan.

Maximowicz expresses the opinion that the Himalayan plant is a distinct species, yet we find no essential difference. Webster sends from Moukden what appears to be a variety of this, having larger double flowers.

20. **Prunus** (§ **Euprunus**) **triflora**, *Roxb. Hort. Beng.* p. 38, et *Fl. Ind.* ii. p. 501 (*lapsu* P. trifolia); *Kurz, Fl. Brit. Burm.* i. p. 434; *Hook. f. Fl. Brit. Ind.* ii. p. 315; *Maxim. in Mél. Biol.* xi. p. 678.

CHINA (ex *Roxburgh*). Herb. Kew.

Ava Hills.

We have only seen specimens cultivated in the Calcutta Botanic Garden, and they strongly resemble *P. communis*.

21. **Prunus** (§ **Amygdalus**) **triloba**, *Lindl. in Gard. Chron.* 1857, p. 268; *Fortune in Gard. Chron.* 1860, p. 170; *Lemaire in Ill. Hort.* 1860, t. 308; *Walp. Ann.* vii. p. 850; *Maxim. in Mél. Biol.* xi. p. 665, et *in Bull. Soc. Nat. Mosc.* 1879, p. 15; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 214, et *Pl. David.* p. 104.

Prunus virgata, *Hortul.*

Amygdalopsis Lindleyi, *Carr. in Rev. Hort.* 1862, p. 91.

Amygdalus pedunculata, *Bunge, Enum. Pl. Chin. Bor.* p. 22, non *Pall.*

Prunopsis Lindleyi, *André in Rev. Hort.* 1883, p. 336, cum fig. xylogr.

CHIHLI (ex *Bunge*; *David* ex *Franchet*), mountains west of Peking (*Bretschneider*, in hb. *Forbes*!); SHANTUNG (ex *Fortune et Franchet*).

A fruiting specimen of a species of *Prunus* collected by Oldham in Kuper Harbour, Corean Archipelago, we have not been able to identify. It has remarkably slender branchlets and shortly petiolate, ovate, long-acuminate leaves; and Oldham notes that it has a red succulent fruit.

1. **Pygeum latifolium**, *Miq. Fl. Ind. Bat.* i. p. 361; *Benth. Fl. Hongk.* p. 104.

Germaria latifolia, *Presl, Epimel. Bot.* p. 221.

HONGKONG (*Wright*!).

Malay Archipelago and Philippine Islands.

## 47. ROSACEÆ: SPIRÆEÆ.

1. **Spiræa angustiloba**, *Turcz. in Fisch. et Mey. Ind. Sem. Hort. Petrop.* viii. p. 71; *Ledeb. Fl. Ross.* ii. p. 17; *Franchet, Pl. David.* p. 108.

Filipendula angustiloba, *Maxim. in Act. Hort. Petrop.* vi. p. 250.

CHIHLI: Jehol (*David*, 1903, ex *Franchet*).

Dahuria to Mandshuria.

2. **Spiræa Aruncus**, *Linn. Sp. Pl.* ed. 1, p. 490; *Ledeb. Fl. Ross.* ii. p. 16; *Hook. f. Fl. Brit. Ind.* ii. p. 323.

Aruncus sylvester, *Kostel. Ind. Prag.* p. 15, ex *Maxim. in Act. Hort. Petrop.* vi. p. 169 (varietates).

SHINGKING: between Moukden and the Yaloo river (*James*!); KANSUH (*Piasezki* ex *Maximowicz*). Herb. Kew.

Europe, North Asia to Japan, and North America.

3. **Spiræa betulæfolia**, *Pall. Fl. Ross.* i. p. 33, t. 16; *Maxim. in Act. Hort. Petrop.* vi. p. 103; *Franchet, Pl. David.* p. 108; *Debeaux, Fl. Tchef.* p. 53.

Spiræa chamædryfolia, *Cham. et Schl. in Linnæa*, ii. p. 2, non *Linn.*

CHIHLI: Jehol (*David*, 1818!); SHANTUNG: Chefoo (hb. *Forbes*!). Herb. Kew.

Siberia, Mandshuria, Japan, and widely spread in North America.

4. **Spiræa Blumei**, *G. Don, Gen. Syst.* ii. p. 518; *Maxim. in Act. Hort. Petrop.* vi. p. 196; *Morr. Belg. Hort.* 1858, p. 131, t. 37. fig. 2.

Spiræa chamædryfolia, *Blume, Bijdr.* p. 1114, nec *Linn.*

SHINGKING: south of Hingjing (*Ross*!); KIANGSI: Kiukiang (*Shearer*! *Maries*!). Herb. Kew.

Japan.

The Shingking specimen is very young and imperfect, and doubtfully referred here.

Var. **hirsuta**, *Hemsl.*, pedicellis calycibusque dense sericeo-pubescentibus.

HUPEH: Ichang (*A. Henrg*!). Herb. Kew.

Strikingly as this deviates in the feature indicated, it does not differ otherwise from the Kiukiang specimens.

Var. **rotundifolia**, *Hemsl.*, foliis fere orbicularibus supra medium crenulatis.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

A remarkably distinct form, which, in the absence of the intermediate variety *hirsuta*, of which it has the hairy pedicels and calyces, we should certainly have described as an independent species.

Var. ? **latipetala**, *Hemsl.*, foliis ovatis fere glabris supra medium paucidentatis, pedicellis calycibusque puberulis, petalis venosis 2–3 lineas latis.

CHEKIANG: Ningpo (*Cooper*!). Herb. Kew.

This may prove specifically distinct; but we have seen only one specimen, and that in flower.

5. **Spiræa cantoniensis**, *Lour. Fl. Cochinch.* p. 322; *Benth. Fl. Hongk.* p. 105; *Maxim. in Act. Hort. Petrop.* vi. p. 195.

Spiræa lanceolata, *Poir. in Lam. Encycl.* vii. p. 354; *DC. Prodr.* ii. p. 543.

Spiræa japonica, *Sieb. in Bl. Bijdr.* p. 1114, non *Linn. f.*

Spiræa Reevesiana, *Lindl. Bot. Reg.* 1844, t. 10; *Fl. des Serres*, t. 1097 (var. fl. pleno); *Regel, Gartenfl.* t. 252.

Spiræa corymbosa, *Roxb. Fl. Ind.* ii. p. 512.

Spiræa chamædryfolia, *Thunb. Fl. Jap.* p. 210, non *Linn.* (fide *Maxim.*).

CHINA: without locality (*Millett*!); FOKIEN: Foochow, cult. (*Fortune*, 35!); KWANGTUNG: Whampoa (*Hance*!); HONGKONG (*Wright*!). Mus. Brit.; Herb. Kew.

Japan.

6. **Spiræa dasyantha**, *Bunge, Enum. Pl. Chin. Bor.* p. 23 (1835); *Walp. Rep.* ii. p. 49; *Franchet, Pl. David.* p. 107.

Spiræa pubescens, *Lindl. in Journ. Hort. Soc. Lond.* ii. p. 157, et *Bot. Reg.* 1847, t. 38, et *Herb. Chin. Bung. in Herb. Kew,* nec *Turcz.*

Spiræa chinensis, *Maxim. in Act. Hort. Petrop.* vi. p. 193.

CHIHLI: mountains near Peking (*Bunge*! *Tatarinow*! *Bretschneider*! *Carles*! *Bushell*!); KIANGSU: Chinkiang (*Maries*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*A. Henry*!). Herb. Kew.

There can be no doubt that the *Spiræa* cultivated under the name *pubescens*, and figured by Lindley, is the same as that distributed by Bunge under the same name, and subsequently described and published by him as *S. dasyantha*. *S. pubescens*, Turcz., is certainly very closely allied, yet easily distinguished by its narrower, less distinctly veined leaves, having longer hairs on the under surface, and glabrous flowers. The flowers of *S. dasyantha* appear to be functionally unisexual; the females having a strongly developed lobate disk, and the males small sessile rudimentary carpels.

7. **Spiræa Henryi**, *Hemsl.*, n. sp. (Plate VI.)

*Frutex* 6–7-pedalis (*Henry*) ramosissimus, ramulis floriferis graciliusculis glabrescentibus. *Folia* breviter petiolata, subcoriacea, obovata vel oblonga, 1–1½ poll. longa vel interdum usque bipollicaria, supra cito glabrescentia, subtus pubescentia simul prominenter 3–5-nervosa, subintegra vel supra medium 3–7-dentata, interdum fere truncatim 3-dentata, dentibus lateralibus multo minoribus. *Flores* mediocres, numerosissimi, in corymbos compositos breviter pedunculatos terminales dispositi, pedicellis brevibus filiformibus calycibusque puberulis vel parce pilosis; calycis dentes breves, lati, vix acuti; petala glabra, rotundata, venosa; ovaria parce pilosa, 2-ovulata, ovulis pendulis. *Carpella* matura non visa.

HUPEH: Patung and Ichang (*A. Henry*!). Herb. Kew.

In foliage this resembles *S. pubescens*, *S. dasyantha*, and some of the forms of *S. Blumei*, from all of which it is easily distinguished by its compoundly corymbose inflorescence. Dr. A. Henry notes that the leaves are used as a substitute for tea.

8. **Spiræa japonica**, *Linn. f. Suppl.* p. 262; *Maxim. in Act. Hort. Petrop.* vi. p. 203.

Spiræa callosa, *Thunb. Fl. Jap.* p. 209; *DC. Prodr.* ii. p. 544; *Lindl. et*

*Paxt. Fl. Gard.* ii. p. 113, cum fig. xylogr.; *Hook. f. Fl. Brit. Ind.* ii. p. 324.

Spiræa Fortunei, *Planch. in Fl. des Serres*, ix. t. 871; *Bot. Mag.* t. 5164.

SHANTUNG (*Maingay* !); KIANGSI: Kiukiang (*Shearer* !); HUPEH: Ichang and Patung (*A. Henry* !). Herb. Kew.

Khasia mountains, India, and in Japan.

There is a weak, slender state of this from Patung, probably from a shaded situation, with a small loose inflorescence, giving it quite a different appearance.

9. **Spiræa longigemmis**, *Maxim. in Act. Hort. Petrop.* vi. p. 205.

KANSUH: south of the Hoangho (*Przewalski* & *Piasezki* ex *Maximowicz*).

10. **Spiræa mongolica**, *Maxim. in Mél. Biol.* xi. p. 216.

Spiræa crenifolia, γ mongolica, *Maxim. in Act. Hort. Petrop.* vi. p. 181.

KANSUH (*Przewalski* ex *Maximowicz*).

Also in Mongolia.

11. **Spiræa palmata**, *Pall. Reise*, iii. p. 735, t. Q. fig. 1, et *Fl. Ross.* i. p. 40, t. 27; *Franchet, Pl. David.* p. 108.

Filipendula palmata, *Maxim. in Act. Hort. Petrop.* vi. p. 250.

Spiræa digitata, *Willd. Sp. Pl.* ii. p. 1061.

CHIHLI: Peking (*David* ex *Franchet*); SHINGKING and COREA (*James* !). Herb. Kew.

Siberia and Mandshuria.

12. **Spiræa prostrata**, *Maxim. in Act. Hort. Petrop.* vi. p. 184.

HUPEH, SHENSI, and KANSUH (*Piasezki* ex *Maximowicz*).

13. **Spiræa prunifolia**, *Sieb. et Zucc. Fl. Jap.* i. p. 131, t. 70; *Maxim. in Act. Hort. Petrop.* vi. p. 184; *Fl. des Serres*, t. 153–154.

KIANGSU: Chinkiang (*Stronach* !); KIANGSI: Kiukiang (*Shearer* !); FOKIEN (*De Grijs*, hb. *Hance*, 1218 !); COREA: Chemulpo (*Carles* !). Mus. Brit.; Herb. Kew.

A double-flowered variety is commonly cultivated in China and Japan, and Fortune procured the same at Amoy. Maximowicz states that he had not seen the single-flowered variety. The Corean plant is a little doubtful.

14. **Spiræa pubescens,** *Turcz. in Bull. Soc. Nat. Mosc.* v. (1832) p. 190; *Walp. Rep.* ii. p. 49; *Maxim. in Act. Hort. Petrop.* vi. p. 193; *Franchet, Pl. David.* p. 106.

Spiræa media, var. sericea, *Hance in Journ. Bot.* 1882, p. 6.

CHIHLI: Jehol (*David*, hb. *Hance*, 13426!), near Peking (*Bushell*!); SHINGKING: Moukden to Yaloo river (*Webster*!), west of Hingjing (*Ross*!). Mus. Brit.; Herb. Kew.

Mongolia.

The only specimen we have seen of *S. sericea*, Turcz., is exceedingly near this in foliage, but the inflorescence is distinctly corymbose or almost racemose, not subumbellate. See the remarks under *S. dasyantha.*

15. **Spiræa salicifolia,** *Linn. Sp. Pl.* ed. 1, p. 489; *DC. Prodr.* ii. p. 544; *Maxim. in Act. Hort. Petrop.* vi. p. 209 (varietates).

SHINGKING: between Moukden and the Yaloo river (*James*!). Herb. Kew.

Eastern Europe to Japan and in North America.

16. **Spiræa sorbifolia,** *Linn. Sp. Pl.* ed. 1, p. 702; *DC. Prodr.* ii. p. 545; *Bunge, Enum. Pl. Chin. Bor.* p. 23; *Hook. f. Fl. Brit. Ind.* ii. p. 324.

Spiræa Kirilowi, *Regel, Til. Fl. Ajan.* p. 81, in adnot.; *Franchet, Pl. David.* p. 108.

Sorbaria sorbifolia, Kirilowi, &c., *Maxim. in Act. Hort. Petrop.* vi. pp. 223–225.

CHIHLI: near Peking (*Bunge*! *Williams*! *Bretschneider*! *Skatchkoff*!); SHINGKING: Chienshan (*Ross*!), Talienhwan (*Swinhoe*!); HUPEH: Ichang and Patung (*A. Henry*!). Mus. Brit.; Herb. Kew.

Altai mountains and Himalayas to Japan and Kamtschatka.

With a large number of specimens before us, we cannot retain the Chinese form as a species distinct from *S. sorbifolia.* Dr. A. Henry notes it as a "tree ten feet high" in one locality, and in another "a tree from twenty to thirty feet high."

17. **Spiræa Thunbergii,** *Sieb. in Blume, Bijdr.* p. 1115; *Sieb. et Zucc. Fl. Jap.* i. p. 130, t. 69; *Maxim. in Act. Hort. Petrop.* vi. p. 183, et *Fl. As. Or. Fragm.* p. 18.

CHINA: without locality (*Fortune*, 6!); KIANGSI: Kiukiang (*Maries*!); CHEKIANG: near Ningpo (*Hancock* ex *Maximowicz*). Herb. Kew.

Japan.

We have followed Maximowicz in referring Fortune's number 6 to this species; and in the Kew Herbarium is a specimen from Kiukiang exactly like it, which we also refer here, though we are not satisfied that they are not the wild condition of *S. prunifolia* rather than *S. Thunbergii*. Possibly the two forms represent only one species.

18. **Spiræa trilobata,** *Linn. Mant.* p. 244; *DC. Prodr.* ii. p. 543; *Maxim. in Act. Hort. Petrop.* vi. p. 197; *Franchet, Pl. David.* p. 107, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 214.

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Hancock*! *Carles*!), Jehol (*David*, 1803!). Mus. Brit.; Herb. Kew.

Turkestan eastward through Siberia.

[*Spiræa incisa,* Carr. (Rev. Hort. 1875, p. 160), is described as a Chinese species allied to, but distinct from, *S. trilobata*.]

19. **Spiræa**, sp., habitu inflorescentia *S. Thunbergii*, sed foliis oblongis subintegris subtus densissime albo-lanatis.

FORMOSA: Tamsui (*Oldham*, 104!). Herb. Kew.

1. **Neillia sinensis**, *Oliv. in Hook. Ic. Pl.* xvi. t. 1540.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

1. **Stephanandra chinensis**, *Hance in Journ. Bot.* 1882, p. 210.

SHANTUNG (*Maingay*!); KIANGSU: Chinkiang (*Maries*!); ANWHEI: Wuhu (*Bullock*, hb. *Hance*, 21998!); KIANGSI: Kiukiang (*Maries*!). Mus. Brit.; Herb. Kew.

2. **Stephanandra flexuosa**, *Sieb. et Zucc. in Abhandl. phys.-math. Cl. bayer. Akad.* iii. p. 740, t. 4. fig. 2; *Maxim. in Act. Hort. Petrop.* vi. p. 217.

COREA: Port Chusan (*Wilford*!), Chemulpo (*Carles*!); COREAN ARCHIPELAGO: Herschel Island (*Oldham*, 205!). Herb. Kew.

Japan.

1. **Exochorda grandiflora**, *Lindl. in Gard. Chron.* 1858, p. 925; *Hance in Journ. Bot.* 1878, p. 10; *S. Moore in Journ. Bot.* 1878, p. 138; *Maxim. in Act. Hort. Petrop.* vi. p. 230.

Spiræa grandiflora, *Hook. Bot. Mag.* t. 4765.

Amelanchier racemosa, *Lindl. in Bot. Reg.* 1847, sub t. 38.

CHINA: without locality (*Fortune*, 29!); KIANGSU: Kiukiang? (*Maries*!), Chinkiang (*Stronach* ex *Hance*); CHEKIANG: Ningpo (*Everard*!), Huchau (*Carles*!). Mus. Brit.; Herb. Kew.

2. **Exochorda serratifolia**, *S. Moore in Hook. Ic. Pl.* xiii. p. 44, t. 1255; *Maxim. in Act. Hort. Petrop.* vi. p. 231.

SHINGKING: west of Hingjing (*Ross*!), Yungling, between Moukden and Yaloo river (*Webster*!). Herb. Kew.

1. **Kerria japonica**, *DC. in Trans. Linn. Soc.* xii. p. 157, et *Prodr.* ii. p. 541; *Sieb. et Zucc. Fl. Jap.* i. p. 183, tt. 98 et 99, partim; *Bot. Reg.* t. 1873; *Maxim. in Act. Hort. Petrop.* vi. p. 242.

Corchorus japonicus, *Thunb. Fl. Jap.* p. 227; *Bot. Rep.* t. 587; *Bot. Mag.* t. 1296.

Spiræa japonica, *Camb. in Ann. Sc. Nat.* i. p. 389.

CHINA: without locality (*Millett*! *Fortune*, 26!); KIANGSI: Kiukiang (*Maries*!); HUPEH: Ichang and Patung (*A. Henry*!). Mus. Brit.; Herb. Kew.

Dr. A. Henry's native collector informed him that the fruit of this shrub is yellow and good to eat, like a raspberry; and he adds that the Chinese name indicates that it has an edible berry.

Andrews was the first to question this being a *Corchorus*, but DeCandolle determined its real affinities.

1. **Rhodotypus kerrioides**, *Sieb. et Zucc. Fl. Jap.* i. p. 185, t. 99; *Regel, Gartenfl.* t. 505; *Bot. Mag.* 5805; *Maxim. in Act. Hort. Petrop.* vi. p. 244; *Hance in Journ. Bot.* 1878, p. 10.

KIANGSU: around Chinkiang (*Stronach*, hb. *Hance*!). Mus. Brit.

Japan.

## 47. ROSACEÆ: RUBEÆ.

1. **Rubus abortivus**, *O. Kuntze, Methodik*, pp. 68, 69, 78.

LUCHU ARCHIPELAGO (*Wright*, 72!). Herb. Kew.

North India.

2. **Rubus althæoides**, *Hance in Ann. Sc. Nat.* 4me série, xiv. p. 222, et *in Journ. Bot.* 1874, p. 260, et 1884, p. 42; *Walp. Ann.* vii. p. 860; *O. Kuntze, Methodik*, p. 95.

FOKIEN (*De Grijs*, hb. *Hance*, 6698!), Mus. Brit.; Herb. Kew.

Japan.

3. **Rubus aralioides**, *Hance in Journ. Bot.* 1884, p. 41.

KWANGTUNG: Lofaushan mountains (*B. C. Henry*!). Mus. Brit.

4. **Rubus coreanus,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 34; *S. Moore in Journ. Bot.* 1875, p. 230; *Maxim. in Mél. Biol.* viii. p. 391.

KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and neighbourhood (*A. Henry*!); COREAN ARCHIPELAGO: Herschel Island (*Oldham*, 215!). Herb. Kew.

"Fruit edible, of various colours—red, yellow, and black" (*A. Henry*).

5. **Rubus corchorifolius,** *Linn. f. Suppl.* p. 263; *DC. Prodr.* ii. p. 567; *Hance in Journ. Bot.* 1878, p. 10, et 1884, p. 42; *Maxim. in Mél. Biol.* viii. p. 380, excl. synon. pro parte, et *Fl. As. Or. Fragm.* p. 17; *Franchet, Pl. David.* p. 109.

Rubus villosus, *Thunb. Fl. Jap.* p. 218.

Rubus Oliveri, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 35.

KIANGSU; Chinkiang (*Maries*!); CHEKIANG: Ningpo (*Hancock* ex *Maximowicz*), Huchau (*Carles*!); FOKIEN: Amoy interior (*Swinhoe*!), Foochow (*Gregory*!); HUPEH: Ichang (*A. Henry*!); SHENSI (*David* ex *Franchet*); KWANGTUNG (*Hance*!). Mus. Brit.; Herb. Kew.

Japan.

6. **Rubus cratægifolius,** *Bunge, Enum. Pl. Chin. Bor.* p. 24; *Walp. Rep.* ii. p. 21; *Hance in Journ. Bot.* 1875, p. 132, et 1884, p. 42; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381; *Maxim. in Mél. Biol.* viii. p. 383; *Franchet, Pl. David.* p. 109; *Regel, Fl. Ussur.* p. 60, t. 5.

CHIHLI: various localities (*Bunge*! *Bretschneider*! *David*!); SHINGKING: Chienshan (*Ross*!); COREA: Soul and Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Mandshuria and throughout Japan.

7. **Rubus Davidianus,** *O. Kuntze, Methodik,* pp. 58, 77, 80.

CHINA: without locality (*David* ex *Kuntze*).

[*Rubus ellipticus*, Smith, a very common and widely-spread Indian species, was collected by Dr. Anderson at Bhamo, just on the border of Western China, and may be expected to occur within our limits.]

8. **Rubus formosensis,** *O. Kuntze, Methodik,* pp. 73 et 79.

Rubus rugosus, *Maxim. in Mél. Biol.* viii. p. 377.

FORMOSA: Kelung (*Oldham*, 93!); KWANGTUNG: on hills along the North river (*Sampson & Hance*, 13771!). Mus. Brit.; Herb. Kew.

9. **Rubus glomeratus**, *Blume, Bijdr.* p. 1111; *Hook. f. Fl. Brit. Ind.* ii. p. 328.

Rubus Hasskarlii, *Miq. Fl. Ind. Bat.* i. pars 1, p. 381; *O. Kuntze, Methodik*, pp. 46 et 77.

CHINA (ex *Kuntze*).

Malay peninsula and archipelago, Polynesia and Australia.

10. **Rubus Grayanus**, *Maxim. in Mél. Biol.* viii. p. 382.

LUCHU ARCHIPELAGO (*Wright*, 79!). Herb. Kew.

11. **Rubus Hanceanus**, *O. Kuntze, Methodik*, pp. 72 et 77 (1879).

Rubus Fordii, *Hance in Journ. Bot.* 1883, p. 298, et 1884, p. 42.

KWANGTUNG: West river, near Toshing (*Ford*!), Macao (*Calléry in hb. Paris*, ex *Kuntze*). Mus. Brit.; Herb. Kew.

12. **Rubus innominatus**, *S. Moore in Journ. Bot.* 1875, p. 226.

KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

13. **Rubus Henryi**, *Hemsl. et O. Kuntze*, n. sp. (e grege *R. hiberni*, O. Kuntze; *R. reflexo* proximus).

*Frutex* supra arbores fruticesque 20 ped. altos scandens, floribus rubris (*Henry*). *Caulis* primarius debilis, glabrescens; ramuli floriferi breves, $\frac{1}{2}$–$1\frac{1}{2}$-pedales, e perulis orti subsimplices, arachnoidei, glabrescentes, aculeis parvis remotis muniti. *Folia* alte trilobata, basi rotundata, lobis lanceolatis acuminatis, 4 poll. longis, 9 lineas latis, subtus tomentosa, supra glabra, opaca, haud rugosa, serrulata; petiolus folio 2–3-plo minor, 1 poll. longus; stipulæ liberæ vel infimæ petiolo paullum adnatæ, lineariæ, lanceolatæ, apice interdum denticulatæ. *Racemi* terminales, erecti, floribus 6–10 brevipedicellatis; calycis segmenta integra, lata, caudata, hirsuta, dorso setosoglandulosa; petala angusta, sepalis subæquilonga; stamina multa, parce pilosula; ovaria pauca atque styli hirsuta. *Fructus* ignotus.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

This is a remarkably distinct species, readily distinguished by its trident-like leaves of three narrow diverging lobes.

14. **Rubus ichangensis**, *Hemsl. et O. Kuntze*, n. sp. (ex affinitate *R. Lobbiani* et *R. maximi*).

*Frutex* glaber vel glabrescens, nervis foliorum inflorescentiis sepalis pilosulis exceptis. *Caules* (verosimiliter alte scandentes) dense setoso-glandulosi, ætate glandulis deficientibus minute aculeati, aculeis paucis majoribus falcatis immixtis. *Stipulæ*

caducæ, subulatæ, integerrimæ. *Folia* subcoriacea, absque petiolo usque ad 2½ poll. longa (sine dubio folia inferiora non visa majora), cordata, basi sublobata latissima, longe acuminata, apice curvata, læte viridia, haud rugosa, remote denticulata, longe petiolata; petiolus lamino dimidio brevior. *Inflorescentiæ* contracto-paniculatæ vel dense racemosæ terminales vel in axillis ultimis sitæ. *Flores* parvi, brevipedicellati, staminibus paucis ovariis paucis; calycis segmenta integerrima; petala angusta, subspathulata, sepalis subbreviora, staminibus sublongiora; receptaculum subplanum, hirsutum. *Bacca* rubra, glabra.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*!). Herb. Kew.

The elongated, cordiform, distantly toothed, glabrous, or early glabrescent leaves, associated with small flowers and few (about a dozen) ovaries, are specially characteristic of this species.

15. **Rubus incisus**, *Thunb. Fl. Jap.* p. 217; non *A. Gr. in Perry's Exped.* p. 310, nec *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 85, ex *Maxim. in Mél. Biol.* viii. p. 381.

KIANGSU: Chinkiang (*Maries*!); KIANGSI: Kiukiang (*Maries*!). Herb. Kew.

Japan.

16. **Rubus jambosoides**, *Hance in Ann. Sc. Nat.* 4^me^ série, xv. p. 222, et *in Journ. Bot.* 1884, p. 42; *Walp. Ann.* vii. p. 861; *Maxim. in Mél. Biol.* viii. p. 380; *O. Kuntze, Methodik*, p. 71.

FOKIEN: without locality (*De Grijs*!). Mus. Brit.; Herb. Kew.

17. **Rubus Kuntzeanus**, *Hemsl.*, n. sp.

*Frutex* vagans vel scandens, ramulis floriferis teretibus brevissime cinereo-tomentosis, petiolisque parcissime aculeolatis, aculeolis basi latis recurvatis. *Folia* pinnatim trifoliolata, usque ad 9 poll. longa, discoloria; foliola membranacea, valde inæqualia (terminale multo majus), lateralia brevissime petiolata, omnia ovata, sæpius late ovata, acuminata, basi plus minusve rotundata vel interdum subcordata, calloso-denticulata, supra cito glabrescentia, costa venisque impressis, subtus præter costam venasque elevatas cinereas vel fulvas brevissime denseque albo-tomentosa; petiolus teres, graciliusculus; stipulæ petiolo breviter adnatæ, filiformes, semipollicares, persistentes. *Flores* parvi (lineas 4–5 diametro) in paniculas angustas, præsertim terminales, dispositi, breviter pedicellati, bracteis fere filiformibus persistentibus

insigniter recurvatis; calyx densissime tomentosus, lobis latis crassis marginatis infra apicem breviter cornutis; petala longiuscule unguiculata, orbicularia, erosa vel fimbriato-denticulata, lobis calycinis paullo longiora; stamina numerosissima, antheris nudis, filamentis glabris; ovaria numerosissima, pilosa, stylis gracilibus glabris. *Fructus* non visus, sed ruber edulisque ex cl. Henry.

HUPEH: Ichang and immediate neighbourhood, and Patung district (*A. Henry*!). Herb. Kew.

Closely allied to *Rubus innominatus*, S. Moore, and possibly only an eglandular variety of that species. It has the same terete, shortly and densely tomentose branchlets, and the leaflets are quite similar in texture, indumentum, and shape, except that in our species there is no tendency to trilobation in the terminal one. Further, Moore describes his *innominatus* as having "foliis [inferioribus] bijugatim pinnatis," and the whole inflorescence is thickly beset with stipitate glands; while *R. Kuntzeanus* is perfectly glandless, and all the leaves, on branches bearing as many as six or seven, are trifoliolate, without any indication of another pair of leaflets. Moore does not describe the terminal leaflet of his plant as trilobate, though such is the case.

This species is dedicated to Dr. Otto Kuntze, who is working at Kew at the present time, and whose unrivalled knowledge of the simple-leaved *Rubi* has been exercised greatly to our advantage in the elucidation of the Chinese species.

18. **Rubus Lambertianus**, *Ser. in DC. Prodr.* ii. p. 567; *S. Moore in Journ. Bot.* 1875, p. 226; *Maxim. in Mél. Biol.* viii. p. 381.

Rubus ochlanthus, *Hance in Journ. Bot.* 1882, p. 260, et 1884, p. 42.

Rubus pycnanthus, *Focke in Abhandl. Naturw. Verein. Bremen*, iv. p. 196, ex *Kuntze, Methodik*, pp. 58 et 77.

KIANGSI: Kiukiang (*Shearer*!); KWANGTUNG: Saingau on the Lienchau river (*B. C. Henry*, hb. *Hance*, 22021!). Mus. Brit.; Herb. Kew.

Var. **glaber**, *Hemsl.*, ramulis gracilibus, foliisque glabris, floribus albis, fructu luteo.

Rubus hakonensis, *Franch. et Sav. Enum. Pl. Jap.* ii. p. 333; *Kuntze, Methodik*, p. 57.

SOUTH-WEST CHINA (*Bourne*!); HUPEH: Ichang and neighbourhood (*A. Henry*!). Mus. Brit.; Herb. Kew.

Japan.

"Berries yellow, rather sour" (*Henry*).

This differs from what we regard as typical *R. Lambertianus* in being almost wholly glabrous, and in the leaves being very obscurely lobed, and, perhaps, also in the colour of the fruit; for Kuntze states that the latter has red berries.

19. **Rubus leucanthus**, *Hance in Walp. Ann.* ii. p. 468, et *in Journ. Bot.* 1884, p. 42; *Benth. Fl. Hongk.* p. 105; *S. Moore in Journ. Bot.* 1880, p. 2; *Maxim. in Mél. Biol.* viii. p. 394; *Kuntze, Methodik*, p. 122.

Rubus glaberrimus, *Champ. in Hook. Kew Journ. Bot.* iv. p. 80.

Rubus paradoxus, *S. Moore in Journ. Bot.* 1878, p. 132, et 1880, p. 2.

KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wilford*! *Wright*!); HAINAN (*B. C. Henry*!). Mus. Brit.; Herb. Kew.

*Rubus paradoxus*, as Moore subsequently ascertained, is nothing else than a simple-leaved state of this species.

20. **Rubus moluccanus**, *Linn. Sp. Pl.* ed. 1, p. 1197; *DC. Prodr.* ii. p. 566; *Hook. f. Fl. Brit. Ind.* ii. p. 330, pro parte.

Rubus rugosus, *Smith in Rees's Cyclop.* xxx. Rubus, 34.

KWANGTUNG: Lofaushan at 1000 feet (*Ford*!). Mus. Brit.; Herb. Kew.

Very variable and widely spread in the warmer parts of Asia.

21. **Rubus pacificus**, *Hance in Journ. Bot.* 1874, p. 259, et 1884, p. 42.

KIANGSI: Kiukiang (*Mœllendorff*, hb. *Hance*! *Shearer*!). Mus. Brit.; Herb. Kew.

22. **Rubus palmatus**, *Thunb. Fl. Jap.* p. 217, et *Ic. Pl. Jap.* dec. iv. t. 6; *Maxim. in Mél. Biol.* viii. p. 384.

CHEKIANG: Ningpo hills (*Wilson*, hb. *Forbes*!); KOREAN ARCHIPELAGO? (*Oldham*!). Herb. Kew.

There is some doubt whether Oldham's specimen of this common Japanese species was collected within our limits, though Maximowicz cites it. The Kew specimen is labelled "Oldham's Japan and Corean Archipelago Coll. 1862–63."

23. **Rubus paniculatus**, *Smith in Rees's Cyclop.* xxx. Rubus, 41; *DC. Prodr.* ii. p. 567; *Hook. f. Fl. Brit. Ind.* ii. p. 329.

KIANGSU and CHEKIANG (*Poli* ex *Franchet in litt.*).

We have seen no Chinese specimens that we could refer to this common Himalayan species.

24. **Rubus Parkeri,** *Hance in Journ. Bot.* 1882, p. 260, et 1884, p. 42.

HUPEH: Ichang (*A. Henry!*); SZECHUEN: without locality (*Parker*, hb. *Hance*, 21896!), Chungching (*Bourne!*). Mus. Brit.; Herb. Kew.

Speaking from memory, Dr. Kuntze thinks this may be the same as his *Rubus sterilis.*

25. **Rubus parvifolius,** *Linn. Sp. Pl.* ed. 2, p. 707; *DC. Prodr.* ii. p. 564; *Lour. Fl. Cochinch.* p. 324; *Benth. Fl. Hongk.* p. 105; *Benth. Fl. Austral.* ii. p. 430; *Maxim. Mél. Biol.* viii. p. 392 (excl. syn. *R. foliolosus* et *R. microphyllus*, D. Don); *Bot. Reg.* t. 496; *Henriq. in Bol. Soc. Brot.* iii. p. 150.

Rubus triphyllus, *Thunb. Fl. Jap.* p. 215; *Hance in Journ. Bot.* 1878, p. 105, et 1884, p. 42.

Rubus purpureus, *Bunge, Enum. Pl. Chin. Bor.* p. 24; *Miq. in Journ. de Bot. Néerl.* i. p. 121.

Rubus chinensis, *Thunb. Diss. de Rubo*, p. 8, cum fig.

CHINA: common from CHIHLI, SHINGKING, and the COREA to SZECHUEN, HONGKONG, and FORMOSA and LUCHU. Mus. Brit.; Herb. Kew.

Also common in Japan and in Eastern Australia, though unknown from the intervening countries. We agree with Bentham and the author of the 'Flora of British India' (ii. p. 340) in regarding Don's Himalayan *R. foliolosus* as different from this species.

26. **Rubus phœnicolasius,** *Maxim. in Mél. Biol.* viii. p. 393; *Bot. Mag.* t. 6479; *Gard. Chron.* n. s. xxvi. p. 365, f. 74.

KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz in litt.*).

Japan.

27. **Rubus Playfairii,** *Hemsl.*, n. sp.

*Frutex* vagans, ramulis floriferis graciliusculis flexuosis primum fulvo-tomentosis, petiolisque aculeis numerosis parvis brevibus recurvatis armatis. *Folia* pedatim 5–3-foliolata, discoloria, cum petiolo ad 6 poll. longa; foliola valde inæqualia, papyracea, brevissime petiolulata, lanceolata vel oblanceolata, utrinque acuta, mucronulato-serrata, supra, costa impressa excepta, glabra, subtus dense fulvo-tomentosa, costa interdum pauciaculeolata, venis primariis utrinque 7–9 elevatis in dentibus abeuntibus; stipulæ

liberæ, caducissimæ, pinnatifidæ, lobis paucis linearibus. *Flores* vix 6 lineas diametro, pauci, irregulariter fasciculati, fasciculis axillaribus breviter pedunculatis, vel pluribus in paniculam angustam terminalem dispositis; bracteæ palmatifidæ vel pectinatæ, ut bracteolæ dentatæ vel integræ, cito deciduæ; pedicelli breves; calyx tomentosus, lobis latis breviter acuminatis vel apice pluridentatis; petala breviter unguiculata, rotundata, integra, lobis calycinis breviora; stamina numerosissima, antheris barbulatis; ovaria circiter 35, glabra, stylis elongatis filiformibus; receptaculum pilosum. *Fructus* deest.

KWANGTUNG: Pakhoi (*Playfair*!); KWANGSI: Chura (*Wenyon*!); HAINAN (*B. C. Henry*!). Herb. Kew.

"Fruit excellent" (*Rev. B. C. Henry*).

This is the only shrubby bramble with pedately divided leaves known to occur within our limits; and it is a very well-marked species, readily distinguishable from the few other species of this group inhabiting Eastern Asia.

28. **Rubus poliophyllus**, *O. Kuntze, Methodik*, pp. 68 et 78, et *in Herb. Kew.*

YUNNAN: Poneline (*Anderson*!). Herb. Kew.

Sikkim.

29. **Rubus pungens**, *Camb. in Jacquem. Voy., Bot.* p. 48, t. 59; *Maxim. in Mél. Biol.* viii. p. 386 (β. Oldhami).

Rubus Oldhami, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 34.

COREA: Port Chusan (*Wilford*, 956!), Chemulpo and Soul mountains (*Carles*!); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 213!). Herb. Kew.

Also in Japan. Typical *R. pungens*, from which the Eastern variety differs mainly in having longer petals, inhabits North-west India.

30. **Rubus rectangulifolius**, *O. Kuntze, Methodik*, pp. 60 et 78.

CHINA: without locality (*Staunton in Herb. Vindob.*).

31. **Rubus reflexus**, *Ker, Bot. Reg.* t. 461; *DC. Prodr.* ii. p. 566; *Hook. et Arn. Bot. Beech. Voy.* p. 184; *Benth. Fl. Hongk.* p. 104; *Seem. Bot. Voy. 'Herald,'* p. 376; *Maxim. in Mél. Biol.* viii. p. 378; *Kuntze, Methodik*, p. 53.

SOUTH CHINA: without locality (*Beechey*!); KWANGTUNG

(*Staunton*!), North river (*Sampson & Hance*, 13771!); HONGKONG (*Champion*! *Urquhart*! *Wright*! *Seemann*!). Mus. Brit.; Herb. Kew.

32. **Rubus rosæfolius**, *Smith, Ic. ined.* t. 60; *DC. Prodr.* ii. p. 556; *Walp. Ann.* iv. p. 660; *Hook. Ic. Pl.* t. 349; *Hook. f. Fl. Brit. Ind.* ii. p. 341; *Hance in Journ. Bot.* 1878, p. 10, et 1884, p. 42; *Miq. in Journ. de Bot. Néerl.* i. p. 121; *Maxim. in Mél. Biol.* viii. p. 387 (varietates floribus simplicibus plenisque).

Rubus chinensis, *Ser. in DC. Prodr.* ii. p. 557, ex *Maxim.*

FOKIEN: Amoy (*Swinhoe*!); HONGKONG (*Tate*!); KWANGSI (*Playfair*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Common in the warmer parts of China and India, and naturalized in many other tropical and subtropical countries. The specimens from the Chinese localities cited above are all of the single-flowered normal state.

33. **Rubus saxatilis**, *Linn. Sp. Pl.* ed. 1, p. 494; *DC. Prodr.* ii. p. 564; *Maxim. in Mél. Biol.* viii. p. 375; *Franchet, Pl. David.* p. 109.

CHIHLI: Siaowutaishan hill, between 3600 and 5000 feet (*Mœllendorff*!), Jehol (*David*, 2125, ex *Franchet*). Herb. Kew.

Western Europe to Kamtschatka, and in Greenland.

34. **Rubus Sieboldii**, *Blume, Bijdr.* p. 1110; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 35; *Maxim. in Mél. Biol.* viii. p. 377.

LUCHU ARCHIPELAGO: Oosima Island (*Carpenter*!). Herb. Kew.

Japan.

35. **Rubus Swinhoii**, *Hance in Ann. Sc. Nat.* 5me série, v. p. 211; in *Journ. Bot.* 1884, p. 42, et 1885, p. 323; *Maxim. in Mél. Biol.* viii. p. 380.

FORMOSA: Tamsui (*Oldham*!), Kelung (*Ford*!); KWANGTUNG: Lofaushan (*Calder* hb. *Hance*! *Ford*?). Mus. Brit.; Herb. Kew.

36. **Rubus tagallus**, *Cham. et Schl. in Linnæa*, ii. p. 9; *Maxim. in Mél. Biol.* viii. p. 389.

KIANGSU: Shanghai (*Carles*!); FORMOSA: Tamsui (*Oldham*, 89, 90, 91!), without locality (*Wilford*!). Mus. Brit.; Herb. Kew.

Originally described from Philippine-Island specimens.

37. **Rubus tephrodes**, *Hance in Journ. Bot.* 1874, p. 260, et 1884, p. 42; *Franchet, Pl. David.* p. 108.

KIANGSI: Kiukiang (*Mœllendorff*! *Shearer*!). Mus. Brit.; Herb. Kew.

38. **Rubus Thunbergii**, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* p. 18; *Hance in Journ. Bot.* 1878, p. 10, et 1884, p. 42; *Maxim. in Mél. Biol.* viii. p. 389.

CHINA: without locality (*Fortune*!); CHEKIANG: Ningpo (*Oldham*! *Hancock*! *Everard*!), Huchau (*Carles*!); KIANGSI: Kiukiang (*Shearer*! *Maries*!); FOKIEN (*De Grijs*, hb. *Hance*, 817!); FORMOSA (*Swinhoe*!); KWANGTUNG (*Sampson*!); COREAN ARCHIPELAGO (*Oldham*, 47!). Mus. Brit.; Herb. Kew.

Japan.

In the Kew Herbarium there is a form of *Rubus*, from South Formosa, collected by Maries, which probably belongs to this species, though it has thicker and relatively strongly-nerved leaves.

39. **Rubus trifidus**, *Thunb. Fl. Jap.* p. 217; *Maxim. in Mél. Biol.* viii. p. 383.

Rubus incisus, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 35, non *Thunb.*

Rubus rubifolius, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* i. p. 19.

Rubus hydrastifolius, *A. Gr. in Perry's Exped.* p. 311.

Rubus aceroides, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 36, ex *Maxim., loc. sup. cit.*

COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 219!). Herb. Kew.

Maximowicz records this species as wild in Nippon, and cultivated throughout Japan. Miquel based his *R. aceroides* on barren branches of a plant "introduced from China into Japan."

40. **Rubus yunanicus**, *O. Kuntze, Methodik*, pp. 71, 77, 82.

YUNNAN: Poneline (*Anderson*!). Herb. Kew.

41. **Rubus**, sp. (*R. reticulati* var. vel species affinis; specimen mancum).

SOUTH-WEST CHINA: Shuaychin (*Bourne*!). Herb. Kew.

This is probably an undescribed species; but the material is limited to one leaf and a panicle of flowers.

## 47. ROSACEÆ: Potentilleæ.

1. **Geum strictum**, *Ait. Hort. Kew.* ed. 1, ii. p. 217; *Ledeb. Fl. Ross.* ii. p. 22; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381; *Franchet, Pl. David.* p. 109.

Geum intermedium, *Besser, Cat. Hort. Crem.* (non alior.); *DC. Prodr.* ii. p. 550; *Bunge, Enum. Pl. Chin. Bor.* p. 23.

Chihli: near Peking (*Bretschneider*!); Shingking: Chienshan (*Ross*!); Hupeh: Ichang (*A. Henry*!); Corea: Port Chusan (*Wilford*!). Herb. Kew.

Europe, North Asia, and North America.

1. **Waldsteinia sibirica**, *Tratt. ex Ledeb. Fl. Ross.* ii. p. 26; *Maxim. Prim. Fl. Amur.* p. 93.

Waldsteinia trifolia, *Rochel ex Koch in Linnæa*, xiii. p. 337, t. 6.

Shingking: Peiling, between Moukden and the Yaloo river (*Webster*!). Herb. Kew.

Eastern Europe through Central Asia to Sachalin and Japan.

1. **Coluria longifolia**, *Maxim. in Mél. Biol.* xi. p. 215.

Kansuh (*Przewalski* ex *Maximowicz*).

1. **Fragaria elatior**, *Ehrh. Beitr.* vii. p. 23; *DC. Prodr.* ii. p. 570; *Ledeb. Fl. Ross.* ii. p. 64; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 17.

Fragaria collina, *Maxim. Prim. Fl. Amur.* p. 99; *Franch. et Sav. Enum. Pl. Jap.* ii. p. 356, fide *Maxim.*; *Hance in Journ. Bot.* 1878, p. 11; *Franchet, Pl. David.* p. 110?

Fragaria vesca, *Lour. Fl. Cochinch.* p. 325; *Bretsch. Early Res.* p. 149.

Chihli: Siaowutaishan (*Hancock*, hb. *Hance*); Hupeh: Patung district (*A. Henry*!); Shensi: Tsinling mountains (*David* ex *Franchet*). Mus. Brit.; Herb. Kew.

Western Europe to Japan.

We have followed Maximowicz in referring the Chinese specimens to this species, as all that we have seen exhibit the characters which he regards as characteristic. He says "Unica Fragariæ species Asiæ orientalis incola."

2. **Fragaria (§ Duchesnea) filipendula**, *Hemsl.*, n. sp.

Habitu foliisque *F. indicæ* valde affinis similisque, sed differt radicibus nodosis, foliolis magis incisis pilis longioribus vestitis,

stipulis bracteolisque integris, petalis orbicularibus, receptaculo inter carpellas longissime piloso.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

3. **Fragaria indica**, *Andr. Bot. Rep.* t. 479; *DC. Prodr.* iii. p. 571; *S. Moore in Journ. Bot.* 1878, p. 138; *Hook. f. Fl. Brit. Ind.* ii. p. 343; *Franchet, Pl. David.* p. 110.

Duchesnea fragarioides, *Smith in Trans. Linn. Soc.* x. p. 373; *Debeaux, Fl. Shangh.* p. 29.

KIANGSU: Shanghai (*Carles*!); CHEKIANG: Ningpo (*Oldham*! *Everard*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 103!); HUPEH: Ichang (*A. Henry*!); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 211!). Mus. Brit.; Herb. Kew.

Afghanistan to the Nilghiris, Malay archipelago, and Japan.

1. **Potentilla amurensis**, *Maxim. in Prim. Fl. Amur.* p. 98; *Hance in Journ. Linn. Soc.* xiii. p. 79.

KWANGTUNG: Shiuhing, on the West river (*Sampson*, hb. *Hance*!). Mus. Brit.

Amur.

This does not appear to differ essentially from *P. supina.*

2. **Potentilla ancistrifolia**, *Bunge, Enum. Pl. Chin. Bor.* p. 25; *Lehm. Revis. Potent.* p. 43, t. 18; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 17.

CHIHLI: mountains near Ssijuissy (ex *Bunge*), Siaowutaishan (*Hancock* ex *Maximowicz*).

3. **Potentilla Anserina**, *Linn. Sp. Pl.* ed. 1, p. 495; *Bunge, Enum. Pl. Chin. Bor.* p. 26; *DC. Prodr.* ii. p. 582; *Lehm. Revis. Potent.* p. 188; *Franchet, Pl. David.* p. 113, et *in Bull. Soc. Bot. France*, xxxii. p. 6.

CHIHLI: near Peking (ex *Bunge* et *Franchet*); YUNNAN (*Delavay* ex *Franchet*).

All around the north temperate zone; also in Australasia and South America.

4. **Potentilla betonicæfolia**, *Poir. in Lam. Encycl.* v. p. 601; *Lehm. Revis. Potent.* p. 164, et *Monogr. Potent.* t. 19; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471.

CHIHLI: Peking (ex *Maximowicz*).

Dahuria and Siberia.

5. **Potentilla bifurca**, *Linn. Sp. Pl.* ed. 1, p. 497; *DC. Prodr.* ii. p. 580; *Bunge, Enum. Pl. Chin. Bor.* p. 25; *Lehm. Revis. Potent.* p. 24; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471; *Franchet, Pl. David* p. 111 (var. *glabrata*).

CHIHLI: Jehol (*David,* 1750!), without locality (*Pierson,* hb. *Hance,* 2120!); SHENSI or KIANSUH: Tsunglin range (*Piasezki* ex *Maximowicz in litt.*). Mus. Brit.; Herb. Kew.

Siberia and North India.

6. **Potentilla centigrana**, *Maxim. in Mél. Biol.* ix. p. 156.

Potentilla reptans, var. trifoliolata, *A. Gr. in Mem. Amer. Acad.* n. s. vi. p. 387.

LUCHU ARCHIPELAGO (*Wright*!). Herb. Kew.

Japan.

7. **Potentilla chinensis**, *Ser. in DC. Prodr.* ii. p. 581; *Maxim. Prim. Fl. Amur.* p. 96; *Lehm. Revis. Potent.* p. 64, t. 23; *Franchet, Pl. David.* p. 112; *Franch. et Sav. Enum. Pl. Jap.* ii. p. 338 (varietates 6).

Potentilla exaltata, *Bunge, Enum. Pl. Chin. Bor.* p. 24; *Debeaux, Fl. Tchef.* p. 55.

Potentilla multifida, *Baker et S. Moore, Journ. Linn. Soc.* xvii. p. 381, non *Linn.*

CHINA: without locality (*Fortune* 137!); CHIHLI: near Peking (*Mœllendorff*! *Bretschneider*! *Bushell*!); SHINGKING: Talienhwan (*Birnie*! *Swinhoe*!), Peiling (*Webster*!); SHANTUNG: Chefoo (*Fortune*! *Maingay*!); FOKIEN: Amoy (*Sampson*! *Hance,* 1421!); HUPEH: Ichang and Patung district (*A. Henry*!); COREA: Chemulpo (*Carles*!); COREAN ARCHIPELAGO: Peel Island, Kuper Island, and Port Hamilton (*Oldham,* 210!). Mus. Brit.; Herb. Kew.

Mandshuria and Japan.

Closely allied to *P. pensylvanica*; see remarks and references under that species.

This species presents great diversity in its foliage, yet it is always easily distinguished from *P. multifida.*

8. **Potentilla Cryptotæniæ**, *Maxim. in Mél. Biol.* ix. p. 155.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

Mandshuria and Japan.

9. **Potentilla discolor**, *Bunge, Enum. Pl. Chin. Bor.* p. 25, non *Camb.*; *Walp. Rep.* ii. p. 30; *Lehm. Revis. Potent.* p. 39,

t. 12; *Hance in Journ. Bot.* 1878, p. 11; *Debeaux, Fl. Tchef.* p. 55; *Franchet, Pl. David.* p. 112.

Potentilla formosana, *Hance in Ann. Sc. Nat.* 5$^{me}$ série, v. p. 212, et *in Journ. Linn. Soc.* xiii. p. 79 (ubi ad *P. discolorem* reductus est).

CHIHLI: near Peking (*Bunge*!), Jehol (*David*, 1757!); SHINGKING: Peiling, between Moukden and the Yaloo river (*Webster*!), Chienshan (*Ross*!), Fengwangshan (*Forbes*!); SHANTUNG: Chefoo (*Stuhlmann*! *Perry*!); KIANGSU: Chinkiang (*Maries*!); CHEKIANG: Chapu (*Oldham*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 101, 102!); HUPEH: Ichang (*A. Henry*!); COREA: Port Chusan (*Wilford*, 959!); COREAN ARCHIPELAGO: Long Beach (*Oldham*, 209!). Mus. Brit.; Herb. Kew.

10. **Potentilla flagellaris**, *Willd. in Mag. Gesellsch. Naturfr. Berlin*, vii. p. 291; *DC. Prodr.* ii. p. 575; *Bunge, Enum. Pl. Chin. Bor.* p. 26; *Lehm. Revis. Potent.* p. 185, et *Monogr. Gen. Potent.* t. 12; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381; *Debeaux, Fl. Tchef.* p. 56; *Franchet, Pl. David.* p. 113.

CHIHLI: near Peking (ex *Bunge*), Jehol (*David*, 1760!); SHINGKING: Peiling, near Moukden (*Webster*!), Talienhwan (*Birnie*!), Sarhoo (*Ross*!); SHANTUNG: Chefoo (ex *Debeaux*). Herb. Kew.

Altai and Dahuria to the Amur.

11. **Potentilla fragarioides**, *Linn. Sp. Pl.* ed. 1, p. 496; *DC. Prodr.* ii. p. 583; *Lehm. Revis. Potent.* p. 42, et *Monogr.* t. 6 (β. flagellaris); *Maxim. in Mél. Biol.* ix. p. 159 (varietates plures); *Franchet, Pl. David.* p. 112, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 214.

CHIHLI: Jehol (*David*, 1742 et 1758, ex *Franchet*); SHINGKING: various localities (*Ross*! *Webster*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); KIANGSU: Chinkiang (*Maries*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

North India, Siberia, Japan.

12. **Potentilla fragriformis**, *Willd. in Mag. Gesellsch. Naturfr. Berlin*, vii. p. 294; *DC. Prodr.* ii. p. 586; *Lehm. Revis. Potent.* p. 155, et *Monogr. Gen. Potent.* t. 15.

SHINGKING: Black Bear valley (*Ross*!); HUPEH: Ichang and Patung district (*A. Henry*!). Herb. Kew.

Eastern Siberia, Aleutian Islands, and Japan.

The limits of this and the next species are not well defined. Maximowicz (Mél. Biol. ix. p. 161) and Hooker (Fl. Brit. Ind. ii. p. 357) suggest that *P. grandiflora*, Linn., *P. gelida*, C. A. Mey., and *P. fragriformis*, Willd., are the same species. In this sense the species extends to North India and Europe.

13. **Potentilla fruticosa**, *Linn. Sp. Pl.* ed. 1, p. 495; *DC. Prodr.* ii. p. 579; *Lehm. Revis. Potent.* p. 16 *Maxim. in. Mél. Biol.* ix. p. 157 (varietates); *Bretschn. Early Res.* p. 149; *Franchet, Pl. David.* p. 110.

Potentilla davurica, *Nestl. Monogr.* p. 31; *Lehm. Revis. Potent.* p. 15; *Hance in Journ. Linn. Soc.* xiii. p. 79.

Potentilla glabra, *Lodd. Bot. Cab.* t. 914; *Bot. Mag.* t. 3676.

CHIHLI: Pohuashan and Jehol (*David*, 2109, 2132, 2280, ex *Franchet*), common (ex *Bretschneider*).

Western Europe to Sachalin and Japan, and in North America.

14. **Potentilla Kleiniana**, *Wight et Arn. Prodr. Fl. Ind. Or.* p. 300; *Wight, Ill. Ind. Bot.* i. p. 203, t. 85; *Hook. f. Fl. Brit. Ind.* ii. p. 359; *Lehm. Revis. Potent.* p. 79; *Hance in Journ. Bot.* 1880, p. 260; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 215; *Maxim. in Mél. Biol.* ix. p. 162.

Potentilla Wallichiana, *DC. in Wall. Cat.* 1022 (non *Gouan*, nec *Ser. in DC. Prodr.*); *Lehm. Revis. Potent.* p. 80, t. 34.

Duchesnea sundaica, *Miq. Fl. Ind. Bat.* i. 1. p. 372, t. 6.

SHINGKING: Chienshan (*Ross*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); CHEKIANG: Ningpo (*Savatier* ex *Franchet*); KIANGSI: Kiukiang (*Shearer*!); SZECHUEN: Chungking (*Bourne*!); YUNNAN: Poneshee (*Anderson*!); KWANGTUNG: West river (*Sampson*, hb. *Hance*, 15482!). Mus. Brit.; Herb. Kew.

India, from Kashmir to Khasia and Ceylon, and in Java and Japan.

15. **Potentilla nivea**, *Linn. Sp. Pl.* ed. 1, p. 499; *Lehm. Revis. Potent.* p. 165 (varietates numerosæ); *Hook. f. Fl. Brit. Ind.* ii. p. 358.

CHIHLI: Siaowutaishan (*Mœllendorff*!). Mus. Brit.; Herb. Kew.

Temperate and Arctic Europe, Asia, and North America.

16. **Potentilla pensylvanica**, *Linn. Mant.* p. 76; *DC. Prodr.* ii. p. 581; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471;

*Franch. et Sav. Enum. Pl. Jap.* i. p. 131, et ii. p. 340; *Lehm. Revis. Potent.* p. 57.

CHIHLI: Peking? (ex *Maximowicz*).

Caucasus to Japan, and widely spread in North America.

We have seen no Chinese specimens that we could refer to this species (if we retain *P. chinensis* as distinct), which in foliage is so near some of the forms of *P. chinensis* as to be hardly distinguishable. Indeed we are not satisfied that the two are specifically separable; though the latter usually has much smaller and more numerous flowers than the former. Franchet and Savatier (*op. sup. cit.*) indicate differential characters in the foliage and sepals, admitting at the same time that they are of little importance.

17. **Potentilla reptans**, *Linn. Sp. Pl.* ed. 1, p. 499; *DC. Prodr.* ii. p. 574; *Lehm. Revis. Potent.* p. 183; *Franchet, Pl. David.* p. 113 (var. sericophylla).

SHENSI: in the southern part (*David* ex *Franchet*).

Europe, Siberia, and North India to Japan; also in Abyssinia.

18. **Potentilla Sanguisorba,** *Willd. Mag. Gesellsch. Naturfor. Freunde, Berl.* vii. p. 286; *DC. Prodr.* ii. p. 581; *Lehm. Revis. Potent.* p. 56, et *Monogr.* t. 5; *Hance in Journ. Bot.* 1883, p. 299.

SHANTUNG: Chefoo (*Perry*!). Mus. Brit.

Siberia.

19. **Potentilla sericea,** *Linn. Sp. Pl.* ed. 1, p. 495; *DC. Prodr.* ii. p. 582; *Lehm. Revis. Potent.* p. 33 (varietates), et *Monogr. Potent.* t. 6; *Franchet, Pl. David.* p. 111.

Potentilla multicaulis, *Bunge, Enum. Pl. Chin. Bor.* p. 25; *Walp. Rep.* ii. p. 30.

CHIHLI: near Peking (*Bunge*! *Hancock*!), Jehol (*David*, 1699, 1950, ex *Franchet*); SHINGKING: Jaoling and Fooling (*Ross*!). Mus. Brit.; Herb. Kew.

A variable species, widely spread in temperate Asia and North America. We have some doubt whether Ross and Hancock's specimens referred here may not rather be a reduced state of *P. chinensis.*

20. **Potentilla sischanensis**, *Bunge in Lehm. Nov. et minus cognit. Stirp. Pugillus*, ix. p. 3, et *Revis. Potent.* p. 33, t. 9.

Potentilla songarica, β. chinensis, *Bunge, Enum. Pl. Chin. Bor.* p. 25.

CHIHLI: Ssijuissy mountains (*Bunge*!). Herb. Kew.

21. **Potentilla subacaulis**, *Linn.* ex parte, ex *Lehm. Revis. Potent.* p. 173, t. 56.

CHIHLI: near Peking (*Bushell*!). Herb. Kew.

Caucasus and Altai eastward.

We have taken this species as restricted by Lehmann. The Chinese specimens are only about an inch high.

22. **Potentilla supina**, *Linn. Sp. Pl.* ed. 1, p. 497; *DC. Prodr.* ii. p. 580; *Lehm. Revis. Potent.* p. 193; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 381; *Franchet, Pl. David.* p. 113.

Potentilla paradoxa, *Nutt. in Torr. et Gray, Fl. N. Am.* i. p. 437; *Lehm. Revis. Potent.* p. 104, t. 62. fig. 3; *Debeaux, Fl. Tchef.* p. 56; *Franchet, in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 215.

Potentilla amurensis, *Maxim. Prim. Fl. Amur.* p. 98; *Hance in Journ. Linn. Soc.* xiii. p. 79.

CHIHLI: near Peking (*Bretschneider*!), Jehol (*David*, 1888!); SHINGKING: Chienshan (*Ross*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*)! KIANGSU: Shanghai (*Maingay*!); KIANGSI: Kiukiang (*Shearer*!); KWANGTUNG: West river (*Sampson*, hb. *Hance*, 13184!). Mus. Brit.; Herb. Kew.

Western Europe and North Africa to Japan; also in North America.

23. **Potentilla tanacetifolia**, *Willd. in Mag. Gesellsch. Naturfor. Freunde, Berl.* vii. p. 286; *DC. Prodr.* ii. p. 581; *Lehm. Revis. Potent.* p. 55, t. 20; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 17.

CHIHLI: Siaowutaishan (*Hancock* ex *Maximowicz*).

Altai and Dahuria eastward.

24. **Potentilla verticillaris**, *Steph. in Willd. Sp. Pl.* ii. p. 1096 *Lehm. Revis. Potent.* p. 37, et t. 10; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471.

CHIHLI: Peking (ex *Maximowicz*).

Siberia and Chinese Mongolia.

25. **Potentilla viscosa**, *Donn, Hort. Cantab.* ed. 7 (1812); *DC. Prodr.* ii. p. 581; *Lehm. Revis. Potent.* p. 57; *Ledeb. Ic. Pl. Fl. Ross.* t. 343; *Bot. Reg.* t. 1492; *Franchet, Pl. David.* p. 112; *Debeaux, Fl. Tchef.* p. 55; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471.

CHIHLI: Peking (ex *Maximowicz*), Jehol (*David* 2015, ex *Franchet*); SHANTUNG: Chefoo (ex *Debeaux*).

Dahuria and Siberia.

26. **Potentilla,** sp. n.?; perennis, foliis pilosis pinnatis.

SHANTUNG, without locality (*Maingay* !). Herb. Kew.

1. **Chamærhodos erecta,** *Bunge in Ledeb. Fl. Alt.* i. p. 430; *Franchet, Pl. David.* p. 114.

Sibbaldia erecta, *Linn. Sp. Pl.* ed. 1, p. 284; *DC. Prodr.* ii. p. 587.

CHIHLI: without locality (*Tatarinow* !), Jehol (*David*, 1761 !). Mus. Brit.; Herb. Kew.

Siberia.

## 47. ROSACEÆ: POTERIEÆ.

1. **Agrimonia Eupatoria,** *Linn. Sp. Pl.* ed. 1, p. 448; *DC. Prodr.* ii. p. 587.

Agrimonia pilosa, *Ledeb. Ind. Sem. Hort. Dorp. Suppl.* 1823, p. 1; *Hance in Journ. Linn. Soc.* xiii. p. 80; *Franchet, Pl. David.* p. 114, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 215.

Agrimonia viscidula, *Bunge, Enum. Pl. Chin. Bor.* p. 26; *Hance in Journ. Linn. Soc.* xiii. p. 80, et *Journ. Bot.* 1870, p. 276, et 1874, p. 260; *Debeaux, Fl. Tchef.* p. 57.

CHIHLI and the COREA to KWANGTUNG, FORMOSA, and the LUCHU ARCHIPELAGO; apparently common. Mus. Brit.; Herb. Kew.

All round the north temperate zone.

With a very large number of specimens before us we are quite unable to recognize more than one species, and that undistinguishable from *A. Eupatoria*. Bunge himself describes his *A. viscidula* as "intermedia quasi inter *A. Eupatoriam* et *A. pilosam*."

1. **Spenceria ramalana,** *Trim. in Journ. Bot.* 1879, p. 97, t. 201.

SZECHUEN: Ramala mountains, on the border of Tibet (*Gill* !): YUNNAN: mountains of Heechanmen, above Lankong (*Delavoy* !). Mus. Brit.; Herb. Kew.

1. **Poterium canadense,** *A. Gr. Man. Bot. Northern U. S.* ed. 5, p. 150; *Franch. et Sav. Enum. Pl. Jap.* i. p. 134.

Sanguisorba canadensis, *Linn. Sp. Pl.* ed. 1, p. 117; *DC. Prodr.* ii. p. 594; *Debeaux, Fl. Tchef.* p. 58, et *Fl. Tients. Addend.* p. 63 (β. latifolia); *Ledeb. Fl. Ross.* ii. p. 28.

SHANTUNG : Chefoo (ex *Debeaux*).

North-eastern Asia and North America.

2. **Poterium filiforme**, *Hook. f. Fl. Brit. Ind.* ii. p. 362; *Franch. in Bull. Soc. Bot. France*, xxxii. p. 6.

YUNNAN : Konalapo, near Hokin (*Delavay* ex *Franchet*).

3. **Poterium officinale**, *Benth. et Hook. f. Gen. Pl.* i. p. 624; *Franch. et Sav. Enum. Pl. Jap.* i. p. 133.

Sanguisorba officinalis, *Linn. Sp. Pl.* ed. 1, p. 116; *DC. Prodr.* ii. p. 593; *Maxim. in Mél. Biol.* ix. p. 153 (*cum var.* carnea); *Franchet, Pl. David.* p. 114, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 216.

Sanguisorba carnea, *Fisch.* ex *Link, Enum. Pl. Hort. Berol.* i. p. 144, excl. syn. S. rubra, *Schrank.*

CHIHLI : near Peking (*Bretschneider*! *Bushell*!), Jehol and Pohuashan (*David*, 513, 2107, ex *Franchet*); SHINGKING : Chienshan (*Ross*!), Moukden to Yaloo river (*Webster*!); KIANGSI : Kiukiang (*David* ex *Franchet*); HUPEH : Ichang (*A. Henry*!); COREAN ARCHIPELAGO : Green Island (*Oldham*, 222!). Mus. Brit.; Herb. Kew.

Europe, Northern Asia, and North America.

4. **Poterium tenuifolium**, *Franch. et Sav. Enum. Pl. Jap.* i. p. 133.

Sanguisorba tenuifolia, *Fisch. ex Link, Enum. Pl. Hort. Berol.* i. p. 144; *Ledeb. Fl. Ross.* ii. p. 28; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 216; *Debeaux, Fl. Tchef.* p. 59.

SHINGKING : Peiling (*Webster*!); SHANTUNG (*Maingay*!); KIANGSI : Kiukiang (*Shearer*!); COREAN ARCHIPELAGO : Bate group (*Oldham*, 223!). Herb. Kew.

Dahuria to Kamtschatka and Japan.

## 47. ROSACEÆ : ROSEÆ.

1. **Rosa anemonæflora**, *Fortune ex Lindl. in Journ. Hort. Soc. Lond.* ii. p. 316; *Walp. Ann.* iii. p. 854; *Crépin in Comptes-rendus Soc. Bot. Belg.* xxii. 2. p. 45, et xxiv. 2. p. 13.

Rosa sempervirens, β. anemoniflora, *Regel, Tent. Ros. Monogr.* p. 83.

Rosa triphylla, *Roxb. Fl. Ind.* ii. p. 515.

KIANGSU : Shanghai in gardens (*Fortune* ex *Lindley*); FOKIEN : Amoy (*Fortune*, 61!). Mus. Brit.; Herb. Kew.

Fortune's Amoy plant in the Kew Herbarium has been named "*Rosa Fortunei*" by Crépin, though most probably through inad-

vertence, as it has adnate persistent stipules, and otherwise exactly agrees with Lindley's description and the plant cultivated in this country under the name of *Rosa anemonæflora*.

2. **Rosa acicularis**, *Lindl. Rosar. Monogr.* p. 44, t. 8; *Hance in Journ. Bot.* 1880, p. 260; *Crépin in Bull. Soc. Bot. Belg.* xiv. p. 5, et *in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 14; *Regel, Tent. Ros. Monogr.* p. 18 (varietates plures).

CHIHLI: in the mountains of Siaowutaishan (*Hancock*!). Mus. Brit.

Nearly all round the north temperate zone.

[*Rosa alba*, Lour. (Fl. Cochinch. p. 393) should probably have been *R. moschata*.]

3. **Rosa Banksiæ**, *R. Br. in Ait. Hort. Kew.* ed. 2, iii. p. 258; *Lindl. Ros. Monogr.* p. 131; *Bot. Mag.* t. 1954; *Bot. Reg.* t. 397; *Crépin in Bull. Soc. Bot. Belg.* xiv. p. 162, et xv. p. 233, *in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 7; *Regel, Tent. Ros. Monogr.* p. 91, excl. β. microcarpa; *Franchet, Pl. David.* p. 115.

Rosa inermis, *Roxb. Fl. Ind.* ii. p. 516.

HUPEH: hanging from rocks at Ichang Gorge and Nanto district (*A. Henry*!); SHENSI: an sponte? (*David* ex *Franchet*); YUNNAN (*David* ex *Crépin*). Mus. Brit.; Herb. Kew.

Japan.

Dr. A. Henry sends both flowering and fruiting specimens. He describes the flowers as white; and this species appears from his notes to be perfectly wild in the province of Hupeh.

*Rosa fragariæflora*, Ser. (DC. Prodr. ii. p. 601; Ic. Pl. Chin. e Bibl. Braam, t. 28), is apparently the wild state of *R. Banksiæ*, being no more prickly than Dr. Henry's Ichang specimens. Braam's figure is probably the unpublished drawing cited by Lindley (Ros. Monogr. p. 130) under his *R. microcarpa*; and the *microcarpa* attributed to Braam (Walp. Rep. ii. p. 12)*, though the description does not agree. Genuine *microcarpa*, as we

* Walpers cites numbers for Braam's plates, and gives short, yet very inaccurate, descriptions without any indication of their origin or authorship. Neither Pritzel nor Daydon Jackson mentions this book, of which there are two copies in the Kew Library, both with unnumbered plates, differently arranged. One has a printed titlepage, dated 1821, and a short Latin preface in which *Rosa microcarpa* and *R. involucrata* are mentioned. The other has a lithographed titlepage dated 1818, and an "advertisement" signed W. Cattley.

now know from copious specimens, has very numerous small flowers.

[*R. Fortuniana* (Lindl. et Paxt. Fl. Gard. ii. p. 71, fig. xylogr. 171) is a semi-double rose introduced from China by Fortune, and is probably a hybrid between *R. Banksiæ* and *R. indica*.]

4. **Rosa bracteata**, *Wendl. Obs.* p. 50, et *Hort. Herrenh.* t. 23; *DC. Prodr.* ii. p. 602; *Vent. Hort. Cels.* t. 28; *Lindl. Ros. Monogr.* p. 10 (incl. β. scabriusculus); *Bot. Mag.* t. 1377; *Crépin in Bull. Soc. Bot. Belg.* xiv. p. 137, et *in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 14.

Rosa lucida, *Lawr. Roses*, t. 84.

Rosa Macartnea, *Dumont, Bot. Cult.* ed. 2, v. p. 483, non ed. 1, iii. p. 351; fide *DC. in Redouté, Roses*, ii. p. 82.

Rosa involucrata, *Braam* (*Ic. Pl. Chin. e Bibl. Braam*, t. 17) *ex Walp. Rep.* ii. p. 12, nec *Roxb.*

Rosa Serræ, *Dehnhardt, Rivista Napol.* i. 3. p. 163; *Walp. Rep.* ii. p. 11?

CHEKIANG: without locality (*Staunton*), Chapu (*Oldham*, 94!); FOKIEN: Amoy (*Sampson*, hb. *Hance*, 1265!); FORMOSA: north-east (*Wilford*!), Tamsui (*Oldham*, 95!). Mus. Brit.; Herb. Kew.

[*Rosa centifolia*, Lour. (Fl. Cochinch. p. 323), is not that of other authors, though we are unable to say what was intended.]

5. **Rosa davurica**, *Pall. Fl. Ros.* ii. p. 61; *Lindl. Ros. Monogr.* p. 32; *DC. Prodr.* ii. p. 606; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382; *Crépin in Bull. Soc. Bot. Belg.* xiv. p. 33; *Franchet, Pl. David.* p. 116.

Rosa cinnamomea, δ. dahurica, *Regel, Tent. Ros. Monogr.* p. 41, excl. synon.

CHIHLI: Jehol: "C'est la seule espèce du pays" (*David*, 1857, ex *Franchet*); SHINGKING: west of Chienshan (*Ross*!), Moukden (*Webster*!). Herb. Kew.

Dahuria to Mandshuria.

*Rosa cinnamomea*, Bretschn. (Early Res. p. 149), may be this species. What Loureiro intended under this name is problematical.

6. **Rosa indica**, *Linn. Sp. Pl.* ed. 1, p. 492, excl. syn. *Petiv.*; *DC. Prodr.* ii. p. 600; *Lour. Fl. Cochinch.* p. 323; *Lindl. Ros. Monogr.* p. 106; *Regel, Tent. Ros. Monogr.* p. 73; *Crépin in*

*Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 14; *Baker in Gard. Chron.* n. s. xxiv. p. 199; *Hook. f. Fl. Brit. Ind.* ii. p. 364.

Rosa semperflorens, *Curt. Bot. Mag.* t. 284; *Lindl. Ros. Monogr.* p. 108.

Rosa sinica, *Linn. Syst. Veg.* ed. 13, p. 398.

Rosa chinensis, *Jacq. Obs.* iii. p. 7, t. 55; *Willd. Sp. Pl.* ii. p. 1078.

Rosa diversifolia, *Vent. Hort. Cels.* t. 35.

Rosa bengalensis, *Pers. Syn. Pl.* ii. p. 50; *Savi, Fl. It.* i. t. 38.

Rosa longifolia, *Willd. Sp. Pl.* ii. p. 1079; *Red. Ros.* ii. p. 27, t. 12.

Rosa pseudo-indica, *Lindl. Ros. Monogr.* p. 132?

Rosa odoratissima, *Sweet, Hort. Suburb. Lond. ex Lindl.*

Rosa nankinensis, *Lour. Fl. Cochinch.* p. 324?

CHINA: without locality (*Millett*!); FORMOSA (*Oldham*, 96!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG (*Staunton*!). Mus. Brit.; Herb. Kew.

Oldham and Henry's specimens both bear single flowers. Henry describes his as having deep red, or occasionally pink, flowers; and states that he found it creeping over rocks in one place only. This species is not admitted as a native of India by Sir Joseph Hooker; and Franchet and Savatier (Enum. Pl. Jap. i. p. 136) regard it as probably not indigenous in Japan. Lindley explains the involved synonymy of *Rosa indica* consequent upon Linnæus having confused the Chinese species in his writings and herbarium. See also Brandis in 'Nature,' xxxvi. 1887, p. 509.

7. **Rosa lævigata**, *Michx. Fl. Bor.-Am.* i. p. 295; *Lindl. Ros. Monogr.* p. 125; *DC. Prodr.* ii. p. 600; *Crépin in Bull. Soc. Bot. Belg.* xiv. p. 155.

Rosa sinica, *Ait. Hort. Kew.* ed. 2, iii. p. 261, nec *Linn.*; *Lindl. Ros. Monogr* p. 126, t. 16; *Bot. Mag.* t. 2847; *Benth. Fl. Hongk.* p. 106; *Hance in Ann. Sc. Nat.* 5me série, v. p. 211; *Crépin in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 14; *S. Wats. in Proc. Am. Acad.* xx. p. 352.

Rosa nivea, *DC. Hort. Monsp.* p. 137, *Prodr.* ii. p. 599.

Rosa hystrix, *Lindl. Ros. Monogr.* p. 129, t. 17.

Rosa cherokeensis, *Donn, Hort. Cant.* ed. 8, p. 170.

Rosa amygdalifolia, *Ser. in DC. Prodr.* ii. p. 601.

Rosa ternata, *Poir. in Lam. Encycl. Suppl.* vi. p. 295.

Rosa trifoliata, *Bosc, Dict. Agric.* ed. 2, xiii. p. 280.

Rosa cucumerina, *Tratt. Monogr. Ros.* ii. p. 181.

CHINA: without locality (*Millett*!); CHEKIANG: Ningpo (*Cooper*! *Carles*! *Hancock*!); KIANGSI: Kiukiang (*Maries*!); FOKIEN: Amoy (*Fortune*, 36! *Hance*, 805!); FORMOSA: Tamsui

(*Oldham*, 98! *Swinhoe*!); HUPEH: Ichang (*A. Henry*!); SZECHUEN: Chungking (*Bourne*!); KWANGTUNG (*Tate*! *Krone*!); HONGKONG (*Harland*!); KWANGSI (*Playfair*!). Mus. Brit.; Herb. Kew.

Japan; and long ago so thoroughly naturalized in the South-eastern States of North America as to be taken for indigenous; hence the popular name Cherokee Rose. Watson (*op. sup. cit.*), without adducing his reasons for so doing, states that the *Rosa sinica* of Lindley's Monograph is not the *R. sinica* of Aiton's 'Hortus Kewensis.'

8. **Rosa Luciæ,** *Franch. et Rochebr.* ex *Crépin, Bull. Soc. Bot. Belg.* x. p. 323, et *Enum. Pl. Jap.* i. p. 135, et ii. p. 344 (varietates plures); *Crépin in Bull. Soc. Bot. Belg.* xiii. p. 251, et xviii. p. 285, et *in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 13.

Rosa moschata, *Benth. Fl. Hongk.* p. 106, ex *Crépin, MSS. in herb.*

FORMOSA: Tamsui (*Oldham*, 97!); KWANGTUNG: Dane's Island, Whampoa (*Hance*, 804!); HONGKONG (*Harland*!); KWANGSI (*Playfair*!). Mus. Brit.; Herb. Kew.

Japan.

Crépin has given this name with a sign of doubt to a specimen in the Kew Herbarium from Shanghai, collected by Maingay.

9. **Rosa macrophylla,** *Lindl. Ros. Monogr.* p. 35, t. 6; *DC. Prodr.* ii. p. 612; *Wall. Pl. As. Rar.* ii. p. 19, t. 117; *Hance in Journ. Bot.* 1880, p. 260; *Hook. f. Fl. Brit. Ind.* ii. p. 366; *Crépin in Bull. Soc. Bot. Belg.* xiii. p. 284, et *in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 10; *Franchet, Pl. David.* p. 115 (var. *a.* mongolica).

CHIHLI: Pohuashan (*David*, 2248, ex *Franchet*, *Mœllendorff*, hb. *Hance*, 20346!); YUNNAN: Likiang glacier, 10,000 to 11,000 feet (*Delavay* ex *Crépin*). Mus. Brit.

Himalaya mountains from Murree eastward.

The Chinese specimen in Hance's herbarium is very different in aspect from Lindley's type.

10. **Rosa microcarpa,** *Lindl. Ros. Monogr.* p. 130, t. 18; *DC. Prodr.* ii. p. 601; *Hance in Journ. Linn. Soc.* xiii. p. 102, et *Journ. Bot.* 1871, p. 106; *Crépin in Bull. Soc. Bot. Belg.* xiii. p. 244, xv. p. 233, et xviii. p. 276, et *Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 13; *Franchet, Pl. David.* p. 118.

Rosa cheusan glabra etc., *Petiver, Gaz.* p. 57, t. 35. f. 11.
Rosa amoyensis, *Hance in Journ. Bot.* 1868, p. 297.

KANGSU: Fengwangshan (*Hance*!); CHEKIANG: Ningpo (*Oldham*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Hance*, 5690!); HUPEH: Ichang district (*A. Henry*!); KWANGTUNG (*Staunton*); HONGKONG (*Hance*, 10223!). Mus. Brit.; Herb. Kew.

The *Rosa microcarpa* of Braam's 'Icones' (Walp. Rep. ii. p. 12) seems to be *R. Banksiæ* rather than this. See note under that species.

[*Rosa intermedia* or *R. dubia*, Carr. (Rev. Hort. 1868, p. 270, figg. 29, 30), recorded as Chinese, is apparently the same as, or closely allied to, *R. microcarpa*.]

11. **Rosa microphylla**, *Roxb.* ex *Lindl. Ros. Monogr.* pp. 9 et 145; *Bot. Reg.* t. 919; *Roxb. Fl. Ind.* ii. p. 515; *Bot. Mag.* tt. 3490 et 6548 (floribus normalibus simplicibus); *Hance in Journ. Bot.* 1882, p. 5; *Crépin in Bull. Soc. Bot. Belg.* xiv. p. 146, et *Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 10.

KIANGSI: Kiukiang (*Shearer*!); KWEICHAU (*Mesny*, hb. *Hance*, 21110!); SZECHUEN: Chungking (*Bourne*! *Parker*!); YUNNAN: Momyen (*Anderson*!). Mus. Brit.; Herb. Kew.

Japan, and commonly cultivated in India and elsewhere.

The recent 'Botanical Magazine' figure cited above is the only one of the single-flowered state of this old species.

12. **Rosa moschata**, *Mill. Dict.* ed. 8, no. 13; *DC. Prodr.* ii. p. 598; *Bot. Reg.* t. 829 (var. nepalensis); *Crépin in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 8 (var. yunnanensis), et *in Bull. Soc. Bot. Belg.* xviii. p. 287; *Hook. f. Fl. Brit. Ind.* ii. p. 367.

Rosa Brunonii, *Lindl. Ros. Monogr.* p. 120, t. 14; *Hance in Journ. Linn. Soc.* xiii. p. 115; *Bot. Mag.* t. 4030.

HUPEH: Ichang and Patung districts (*A. Henry*!); YUNNAN (*Delavay*, ex *Crépin*); KWANGTUNG: Whampoa (*Hance*, 804!), Fatschan (*Wenyon*!), West river (*Ford*!). Mus. Brit.; Herb. Kew.

Europe to Afghanistan and eastward to Nepal; also in Abyssinia.

It is with some doubt that we follow Hance in referring the Kwangtung specimens to this species, especially as Crépin has named one, but bearing the same number, *R. Luciæ*. *R. multi-*

*flora*, Benth. (Fl. Hongk. p. 407), collected by Hinds, Crépin has labelled "an *R. moschatæ*, var.? vel *R. Luciæ*, var.?" Hence it is evident the limits of these species are not easily defined.

13. **Rosa multiflora**, *Thunb. Fl. Jap.* p. 214; *DC. Prodr.* ii. p. 598; *Lindl. Ros. Monogr.* p. 119; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 216; *Crépin in Bull. Soc. Bot. Belg.* xiii. p. 250, et xviii. p. 278, et *in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 13; *Hook. f. Fl. Brit. Ind.* ii. p. 364; *Bot. Mag.* t. 1059; *Bot. Reg.* t. 425.

Rosa Linkii, *Dehnhardt, Rivist. Napolit.* i. 3. p. 164 (*Walp. Rep.* ii. p. 12), ex *Regel, Tent. Ros. Monogr.* p. 84.

SHINGKING: Chienshan (*Ross*!); SHANTUNG (*Maingay*!); CHEKIANG: Ningpo (*Cooper*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Fortune*, 51); FORMOSA: Kantow, near Tamsui (*Hancock*!); HUPEH: Ichang and Patung districts (*A. Henry*!); SZECHUEN: Chungking (*Bourne*!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*, 699!). Mus. Brit.; Herb. Kew.

Japan, and recently discovered by Vidal in North Luzon, Philippines.

14. **Rosa pimpinellifolia**, *Linn. Sp. Pl.* ed. 1, p. 491; *DC. Prodr.* ii. p. 608; *Bunge, Enum. Pl. Chin. Bor.* p. 26; *Lindl. Ros. Monogr.* p. 50; *Crépin in Bull. Soc. Bot. Belg.* xviii. p. 376, et *in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 14; *Regel, Tent. Ros. Monogr.* p. 20 (excl. syn. R. gymnocarpa, *Nutt.*).

CHIHLI: near Peking, cult. (*Bunge*!), sparingly amongst the ruins of the summer palace (*Hancock*!); SHINGKING: west of Saihoo, cult. (*Ross*!). Herb. Kew.

Western Europe to Mandshuria.

We have seen none save cultivated specimens from China proper, and they are all of the yellow-flowered variety, if variety it be, and probably the same as *Rosa xanthina*, Lindl. Crépin has labelled one of these specimens *Rosa pimpinellifolia*, var. *densiflora*, and refers to the same as differing only in the colour of its flowers from *R. pimpinellifolia*, var. *platyacantha*.

15. **Rosa rugosa**, *Thunb. Fl. Jap.* p. 213; *DC. Prodr.* ii. p. 607; *Lindl. Ros. Monogr.* p. 5, et *in Journ. Hort. Soc. Lond.* iii. p. 318; *Sieb. et Zucc. Fl. Jap.* i. p. 66, t. 28; *Debeaux, Fl.*

*Tchef.* p. 57; *Franchet, Pl. David.* p. 116; *Crépin in Bull. Soc. Bot. Belg.* xi. p. 52, et xiv. p. 41 (varietates plures).

CHIHLI: Peking, cult.? (*Bretschneider*! *Bushell*!); SHING-KING: Talienhwan (*Birnie*! *Swinhoe*!); SHANTUNG (*Maingay*!); COREA: Chemulpo (*Carles*!), west coast (*Perry*!). Herb. Kew.

Japan to Kamtschatka.

16. **Rosa sericea,** *Lindl. Ros. Monogr.* p. 105, t. 12; *Crépin in Bull. Soc. Bot. Belg.* xiv. p. 151, et *Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 9; *Hook. f. Fl. Brit. Ind.* ii. p. 367; *Bot. Mag.* t. 5200.

YUNNAN: between Momyen and Nantyen (*Anderson*!), various localities up to about 11,000 feet (*David* ex *Crépin*). Mus. Brit.; Herb. Kew.

India, from Kumaon eastward.

Anderson's specimens are remarkable for the extreme hairiness of the leaves; and David's are described as having the spines dilated at the base to an extraordinary degree, sometimes, indeed, extending throughout the entire length of the internode. In the Kew Herbarium are specimens similar to the latter, from Munnypore, collected by Watt.

17. **Rosa xanthina,** *Lindl. Ros. Monogr.* p. 132; *Franchet, Pl. David.* p. 117; *Crépin in Comptes-rendus Soc. Bot. Belg.* xxv. 2. p. 14.

CHINA.

This is probably the same plant we have under *pimpinellifolia*. See the remarks under that species. In the place cited Crépin merely gives a classified list of the Chinese Roses; and we are left in doubt whether *R. xanthina*, which he gives specific rank, is the same as *R. pimpinellifolia*, var. *platyacantha*, Crépin, given by Franchet as a synonym of this.

## 47. ROSACEÆ: POMEÆ.

1. **Pyrus Aria,** *Ehrh. Beitr.* iv. p. 20; *DC. Prodr.* ii. p. 636, var. foliis subduplicato-crenato-serrulatis longe acuminatis.

Sorbus Aria, *Crantz*; *Maxim. in Mél. Biol.* ix. p. 173.

HUPEH: Patung, on the high hills only (*A. Henry*!). Herb. Kew.

Western Europe to Japan.

The Chinese is a very marked variety, yet we do not think it

should rank higher. It may be the *Aria alnifolia* recorded by Decaisne (Nouv. Arch. du Mus. x. p. 166) from the Chinese province of Kweichau.

2. **Pyrus Aucuparia,** *Gærtn. Fruct.* ii. p. 45, t. 87; *Ledeb. Fl. Ross.* ii. p. 100; *Hook. f. Fl. Brit. Ind.* ii. p. 375; *Franchet, Pl. David.* p. 120.

Sorbus Aucuparia, *Linn. Sp. Pl.* ed. 1, p. 477; *Maxim. in Mél. Biol.* ix. p. 170 (varietates).

Pyrus (Sorbus) discolor, *Maxim. Prim. Fl. Amur.* p. 103 in adnot.

Pyrus (Sorbus) pohuashanensis, *Hance in Journ. Bot.* 1875, p. 132.

CHIHLI: Jehol (*David*, 1835, ex *Franchet*), Pohuashan (*Bretschneider*!); HUPEH: Patung district (*A. Henry*!). Mus. Brit.; Herb. Kew.

Western Europe to Japan; and a very closely allied species in North America.

Dr. Henry's specimens are probably of the variety described by Maximowicz under the name *discolor*. "Only one tree seen on the high mountains; three feet in diameter and fifty feet high" (*A. Henry*).

3. **Pyrus baccata,** *Linn. Mant.* p. 75; *DC. Prodr.* ii. p. 635; *Hance in Journ. Bot.* 1875, p. 132; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382; *Maxim. in Mél. Biol.* ix. p. 166 (varietates); *Hook. f. Fl. Brit. Ind.* ii. p. 373; *Regel, Gartenfl.* 1862, p. 201, t. 364; *Bot. Mag.* t. 6112; *Franchet, Pl. David.* p. 120.

Malus baccata, *Desf. Arb.* ii. p. 141; *Decne. in Nouv. Arch. du Mus.* x. p. 154.

Malus cerasifera, *Spach, Hist. Veg.* ii. p. 152.

CHIHLI: near Peking and Pohuashan (*Bretschneider*! *David*!), Jehol (*David*, 1728!); SHINGKING: various localities (*Ross*! *Webster*!); CHEKIANG: Taihoo Lake (*Carles*!); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz in litt.*); COREA: Soul (*Carles*!). Mus. Brit.; Herb. Kew.

Himalayas and Dahuria to Japan.

Debeaux (Fl. Tchef. p. 60) records *Pyrus prunifolia*, Willd., from Shantung and Chihli, attributing the latter to Maximowicz. This is the only indication we have found of a wild locality for this species, which differs from *P. baccata* in the fruit being crowned with the persistent calyx-lobes. Varieties of both species are figured by Regel in the place cited above.

4. **Pyrus betulæfolia,** *Bunge, Enum. Pl. Chin. Bor.* p. 27; *Walp. Rep.* ii. p. 53; *Maxim. in Mél. Biol.* ix. p. 169; *Rev. Hort.* 1879, p. 318, figg. 68, 69; *Debeaux, Fl. Tchef.* p. 61; *Decne. Jard. Fruit. du Mus.* i. t. 20.

CHIHLI: near Peking (*Bunge*! *Bretschneider*!); SHANTUNG (ex *Debeaux*); KIANGSI: Kiukiang (*Maries*! *Shearer*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!). Mus. Brit.; Herb. Kew.

Maximowicz refers the large-fruited *P. Simonii*, Carr., to this; but if *Pyrus sinensis* be retained as an independent species, it should rather be referred to that.

5. **Pyrus Calleryana,** *Decne. Jard. Fruit. du Mus.* i. in textu ad P. Jacquemontiana; *Maxim. in Mél. Biol.* ix. p. 169, et *in Bull. Soc. Nat. Mosc.* 1879, p. 18; *Hance in Journ. Bot.* 1883, p. 298; *Franchet, Pl. David.* p. 120.

SHANTUNG: Chefoo (*Hancock* ex *Maximowicz*); KIANGSI: Kiukiang (*David* ex *Franchet*); FOKIEN: Amoy (*Hance*, 1503!); KWANGTUNG: on the Lienchau river (*Graves*!). Mus. Brit.; Herb. Kew.

This species is retained as limited by Maximowicz, though from a superficial comparison of specimens we are quite unable to distinguish it from *P. betulæfolia*. Hance referred his Amoy specimens to *P. variolosa*, Wall. (*P. Pashia*, Ham.), which certainly is also very closely allied.

6. **Pyrus cathayensis,** *Hemsl.*

Cydonia sinensis, *Thouin in Ann. Mus.* xix. p. 145, tt. 8 & 9; *DC. Prodr.* ii. p. 638; *Bot. Reg.* t. 905 (chinensis); *Maxim. in Mél. Biol.* ix. p. 164.

Pyrus sinensis, *Poiret in Lam. Encycl. Suppl.* iv. p. 452, *non Lindl.*

KIANGSI: Kiukiang, cult. (*Shearer*!); HUPEH: Ichang, cult.? (*A. Henry*!). Herb. Kew.

Loureiro (Fl. Cochinch. p. 322) and Debeaux (Fl. Tchef. p. 61, et Fl. Tients. p. 20) have confounded this with the common Quince, *Pyrus Cydonia*.

Dr. Henry refers to his specimen as the "Chinese Quince," but he does not state whether it was wild or cultivated. His specimens and the plant cultivated at Kew have much narrower, less hairy leaves than that originally described and cultivated in Europe.

7. **Pyrus communis,** *Linn. Sp. Pl.* ed. 1, p. 479; *DC. Prodr.* ii. p. 633; *Decne. in Nouv. Arch. du Mus.* x. p. 151; *Hook. f. Fl. Brit. Ind.* ii. p. 374.

COREA: west coast (*Perry* !). Herb. Kew.

South Europe to the Himalayas and Tibet.

Perry's specimen is small and in young fruit, and possibly does not belong to this species, though we have failed to match it with any other.

8. **Pyrus indica,** *Wall. Pl. As. Rar.* ii. p. 56, t. 173; *Hance in Journ. Bot.* 1883, p. 298.

Docynia indica, *Decne. in Nouv. Arch. du Mus.* x. p. 131, t. 14.

KWANGTUNG: Lienchau river (*B. C. Henry* !); YUNNAN: Poneshee (*Anderson* !). Mus. Brit.; Herb. Kew.

Sikkim, Bhotan, and Khasia.

9. **Pyrus japonica,** *Thunb. Fl. Jap.* p. 207; *Kurz in Journ. Bot.* 1873, p. 93; *Bot. Mag.* t. 692.

Chænomeles japonica, *Lindl. in Trans. Linn. Soc.* xiii. p. 97; *Maxim. in Mél. Biol.* ix. p. 162; *Decne. in Nouv. Arch. du Mus.* x. p. 129; *Franchet, Pl. David.* p. 119.

Cydonia japonica, *Pers. Syn. Pl.* ii. p. 40; *DC. Prodr.* ii. p. 638.

Pyrus (Cydonia) Maulei, *Mast. in Gard. Chron.* n. s. i. p. 756, f. 159, et ii. p. 740, t. 144; *Bot. Mag.* t. 6780.

CHIHLI: Peking, cult.? (*Bretschneider* !); SHENSI (*David* ex *Franchet*); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz in litt.*); YUNNAN (*Anderson* !). Herb. Kew.

Japan.

10. **Pyrus Malus,** *Linn. Sp. Pl.* ed. 1, p. 479; *DC. Prodr.* ii. p. 635; *Lour. Fl. Cochinch.* p. 321; *Bunge, Enum. Pl. Chin. Bor.* p. 27; *Hook. f. Fl. Brit. Ind.* ii. p. 373; *Debeaux, Fl. Tchef.* p. 63, et *Fl. Tients.* p. 23; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 217, *varietates* glabra *et* tomentosa.

The Apple is commonly cultivated in North China, but whether it is anywhere wild is uncertain. Hooker regards it as wild in North-west India and westward to the Mediterranean region, and A. DeCandolle (Orig. Pl. Cult. p. 188) is of opinion that it existed in a wild state in Europe in prehistoric times.

11. **Pyrus sinensis,** *Lindl. in Trans. Hort. Soc. Lond.* vi. p. 396 (nomen tantum); *Bot. Reg.* t. 1248 (*chinensis* in textu); *Decne. Jard. Fruit.* i. t. 5; *Bretschn. Early Res.* p. 150; *Baker et*

*S. Moore in Journ. Linn. Soc.* xvii. p. 382; *Franchet, Pl. David.* p. 120; *Maxim. in Mél. Biol.* ix. p. 168; *Debeaux, Fl. Tients.* p. 20.

Pyrus chinensis, *Roxb. Fl. Ind.* ii. p. 511.

Pyrus ussuriensis, *Maxim. Prim. Fl. Amur.* p. 102; *Franch. in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 217.

Pyrus communis, *Thunb. Fl. Jap.* p. 207, *non Linn.*

Pyrus communis, β. sinensis, *C. Koch in Ann. Mus. Bot. Lugd.-Bat.* i. p. 248; *Miq. in op. cit.* iii. p. 40.

CHIHLI: Pohuashan and near Peking (*Bretschneider*!); SHINGKING: Kwandien and Jaoling (*Ross*!), Peiling (*Webster*!); KIANGSI: Kiukiang (*Shearer*!); COREAN ARCHIPELAGO: Kupa (*Oldham*, 98!). Mus. Brit.; Herb. Kew.

Mandshuria and Japan.

12. **Pyrus spectabilis,** *Ait. Hort. Kew.* ed. 1, ii. p. 175; *DC. Prodr.* ii. p. 635; *Bot. Mag.* t. 267; *Maxim. in Mél. Biol.* ix. p. 166; *Franchet, Pl. David.* p. 119, et *in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 217.

Malus spectabilis, *Desf. Arb.* ii. p. 141; *Decne. in Nouv. Arch. du Mus.* x. p. 154.

Malus floribunda, *Sieb. Fl. de Serres,* tt. 1585–89, ex *Maxim.*

Pyrus floribunda, *Lindl. Bot. Reg.* t. 1006, ex *Dcne.*

Pyrus sinensis, *Dum. Cours,* ed. 2, v. p. 429, ex *Dcne.*

Malus microcarpa, *Torringo*; *Carr. in Rev. Hort.* 1881, p. 296, f. 65.

CHINA: without locality (*Fortune*, 9!); CHIHLI: Peking (*Bretschneider*!); SHINGKING: Changdien, Chienshan, and Peiling (*Ross*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Japan.

"In the Patung district there are two tea-plants: one, 'white tea,' used for making tea drunk by natives, and the other 'red tea,' used for making black tea exported to foreign countries. This specimen [of *Pyrus spectabilis*] is the 'red tea,' and the shrub is larger than the 'white tea;' the flower is redder (that of 'white tea' being nearly white, or perhaps a pale pink) and hangs down more."— *A. Henry.*

13. **Pyrus**, sp. (*aff.* P. granulosæ, *Bertol.*; *Hook. f. Fl. Brit. Ind.* ii. p. 378).

HUPEH: Ichang (*A. Henry*, 541!). Herb. Kew.

14. **Pyrus**, sp. (*aff.* P. vestitæ, *Wall.*; *Hook. f. Fl. Brit. Ind.* ii. p. 375).

HUPEH: Ichang (*A. Henry*, 872!). Herb. Kew.

The specimens of these two species are sufficient to determine that they are quite distinct from all of the foregoing species, yet insufficient for description.

[*Mespilus spiralis* and *M. chinensis*, Blume (Bijdr. p. 1102), we know only from the very brief descriptions; and neither Maximowicz nor Decaisne enumerates or even mentions them, we believe.]

1. **Cratægus cuneata,** *Sieb. et Zucc. Fl. Jap. Fam. Nat.* p. 22; *Hemsl. in Journ. Bot.* 1876, p. 207; *Hance in Journ. Bot.* 1878, p. 11; *Franchet, Pl. David.* p. 118; *Maxim. in Mél. Biol.* ix. p. 175.

CHEKIANG: hills near Meichi (*Carles*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*A. Henry*!). Herb. Kew.

Japan.

2. **Cratægus pinnatifida,** *Bunge, Enum. Pl. Chin. Bor.* p. 26; *Walp. Rep.* ii. p. 58; *Baker & S. Moore in Journ. Linn. Soc.* xvii. p. 382; *Hance in Journ. Bot.* 1870, p. 313; *Debeaux, Fl. Tchef.* p. 59; *Franchet, Pl. David.* p. 118, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 216; *Gartenfl.* 1862, p. 204, t. 366 *N. E. Brown in Gard. Chron.* n. s. xxvi. pp. 620, 621, f. 121 (var. major).

Cratægus Oxyacantha, var. pinnatifida, *Regel in Acta Hort. Petrop.* i. p. 119.

Mespilus pinnatifida, *C. Koch, Dendrol.* i. p. 152, et *in Ind. Sem. Hort. Berol.* 1880, p. 20.

CHIHLI: Jehol (*David*, 1773!), region of Peking (*Bunge*! *Bretschneider*! *Bushell*!); SHINGKING: Chienshan and other localities (*Ross*!), Moukden to Yaloo river (*Webster*!); SHANTUNG (*Fauvel* ex *Franchet*); CHEKIANG: hills near Meichi (*Carles*!); KIANGSI: Kiukiang (*Maries*!); HUPEH: Ichang and Patung districts (*A. Henry*!); COREA: Soul (*Carles*!). Mus. Brit.; Herb. Kew.

Mandshuria.

As here limited, this species is exceedingly variable in the size and cutting of the leaves, in the inflorescence (which is sometimes

glabrous, sometimes densely woolly), and in the size of the fruit.

3. **Cratægus Pyracantha,** *Pers. Syn. Pl.* ii. p. 37; *DC. Prodr.* ii. p. 626; *Brandis, For. Fl. N.W. Ind.* p. 208.

Mespilus Pyracantha, *Linn. Sp. Pl.* ed. 1, p. 478; *Lour. Fl. Cochinch.* p. 320.

Cratægus crenulata, *Roxb. Fl. Ind.* ii. p. 509; *Hook. f. Fl. Brit. Ind.* ii. p. 384; *Bot. Reg.* xxx. t. 52.

Pyracantha coccinea *et* crenulata, *Rœm. Synop.* iii. p. 219; *Decne. in Nouv. Arch. du Mus.* x. p. 171.

Cotoneaster Pyracantha, *Spach, Hist. Veg. Phan.* ii. p. 73; *Boiss. Fl. Or.* ii. p. 665.

Sportella atalantoides, *Hance in Journ. Bot.* 1877, p. 207, et 1880, p. 260.

HUPEH: Ichang Gorge (*Maries*!), Ichang and Patung (*A. Henry*!); SZECHUEN: Chungking (*Bourne*!); KWEICHAU: near Kweyang (*Mesny*, hb. *Hance*, 19960!). Mus. Brit.; Herb. Kew.

Southern Europe to the Himalayas.

The leaves of the Chinese specimens are very various, and the fruit is designated "red" by Dr. Henry; therefore it is impossible to identify them with the Indian as distinguished from the western form. From the number of synonyms of this shrub, the instability of the genera of the *Pomaceæ* may be inferred.

4. **Cratægus sanguinea,** *Pall. Fl. Ross.* i. p. 25, t. 11; *Ledeb. Fl. Ross.* ii. p. 88; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 40; *Maxim. in Mél. Biol.* ix. p. 175.

SHINGKING (*James*!). Herb. Kew.

Siberia and Amur; cultivated in Japan.

1. **Cotoneaster integerrima,** *Medic. Geschichte der Botanik,* 1793, p. 85; *Wenzig in Linnæa,* xxxviii. p. 180; *Maxim. Mél. Biol.* ix. p. 174 (var. vulgaris).

Mespilus Cotoneaster, *Linn. Sp. Pl.* ed. 1, p. 479.

Cotoneaster vulgaris, *Lindl. in Trans. Linn. Soc.* xiii. p. 101; *DC. Prodr.* ii. p. 632; *Hook. f. Fl. Brit. Ind.* ii. p. 385.

Cotoneaster acutifolia, *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 171?

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

Western Europe to Mandshuria.

Dr. Henry's specimens agree exactly with a Siberian form in the Kew herbarium.

2. **Cotoneaster microphylla**, *Wall.* ex *Lindl. Bot. Reg.* t. 1114; *Hook. f. Fl. Brit. Ind.* ii. p. 387, excl. var. glacialis; *Decne. in Nouv. Arch. du Mus.* x. p. 176; *Saunders, Refug. Bot.* i. t. 49.

HUPEH: Ichang and Patung districts (*A. Henry*!); KWEICHAU (*Perry* ex *Decaisne*). Herb. Kew.

North India, from Kashmir to Bhotan.

[*Cotoneaster reflexa*, Carr. (Rev. Hort. 1870–71, p. 520), is, to us, an obscure plant. In the place referred to, Mr. Carrière states that it is a native of China, and had been described in the 'Revue Horticole;' yet he gives no reference to the description, which we have failed to find. Decaisne (Nouv. Arch. du Mus. x. p. 173) refers *C. reflexa*, 'Hortul.,' to *C. Fontanesii*, Spach. Mr. Nicholson, Curator of the Royal Gardens, Kew, obligingly furnished us with cultivated specimens of two different species bearing the name *reflexa*—the one probably *C. Fontanesii*, the other *C. multiflora*, Bunge. The former is recorded as a native of Algeria and Persia, and the latter of Central Asia.]

3. **Cotoneaster** (nova species ?).

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

This may possibly be a variety of *C. integerrima*, though it has coriaceous leaves, shining above, and is apparently an evergreen. There is, however, only one branchlet bearing a few flowers.

1. **Eriobotrya fragrans**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 80; *Benth. Fl. Hongk.* p. 108; *Walp. Ann.* iv. p. 670; *Maxim. in Mél. Biol.* ix. p. 176.

KWANGTUNG: mountains opposite Hongkong (*Ford*!); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

2. **Eriobotrya japonica**, *Lindl. in Trans. Linn. Soc.* xiii. p. 102; *DC. Prodr.* ii. p. 631; *Sieb. et Zucc. Fl. Jap.* i. p. 182, t. 97; *Hook. f. Fl. Brit. Ind.* ii. p. 372; *Maxim. in Mél. Biol.* ix. p. 175.

Mespilus japonica, *Thunb. Fl. Jap.* p. 206; *Bot. Reg.* t. 365.

Cratægus Bibas, *Lour. Fl. Cochinch.* p. 319; *Bretschn. Early Res.* p. 150.

KIANGSI: Kiukiang (*Shearer*!); HUPEH: Sanyutung, near Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Commonly cultivated in China and Japan, as well as in some other countries; and, according to a note accompanying Shearer's specimen, it is wild in the Chinese province of Szechuen. Dr. Henry does not state whether his specimens were from wild or cultivated trees.

1. **Photinia Benthamiana**, *Hance in Ann. Sc. Nat.* 5me série, v. p. 213; *Maxim. in Mél. Biol.* ix. p. 177.

KWANGTUNG: Whampoa and other localities (*Hance*, 1501! *Wright*! *Sampson*! *Wenyon*!); HAINAN (*B. C. Henry*!). Mus. Brit.; Herb. Kew.

2. **Photinia crenatoserrata**, *Hance in Journ. Bot.* 1880, p. 261.

HUPEH: Ichang (*Watters*, hb. *Hance*, 20988!). Mus. Brit.

3. **Photinia Fortuneana**, *Maxim. in Mél. Biol.* ix. p. 179; *Hance in Journ. Bot.* 1880, p. 261.

Cotoneaster Fortuneana, *Wenzig in Linnæa*, xxxviii. p. 200, ex *Decne.*
Osteomeles Pyracantha, *Decne. in Nouv. Arch. du Mus.* x. p. 183.

FOKIEN: Amoy (*Fortune*, 69!). Mus. Brit.; Herb. Kew.

This very strongly resembles *Cratægus Pyracantha*, differing in the more conspicuous finely-reticulated venation of the leaves, toothed only above the middle, in the fewer flowered corymbs and stouter pedicels, and the confluent carpels.

4. **Photinia glabra**, *Maxim. in Mél. Biol.* ix. p. 178 (excl. β. chinensis); *Decne. in Nouv. Arch. du Mus.* x. p. 140.

Cratægus glabra, *Thunb. Fl. Jap.* p. 205.
Mespilus glabra, *Colla, Hort. Ripul.* p. 90, in nota, t. 36.

CHEKIANG: Ningpo (*Cooper*!); FOKIEN: Amoy (*Fortune*, 3!). Mus. Brit.; Herb. Kew.

Japan.

This is so readily distinguished from *P. serrulata* that we follow Decaisne in giving both forms specific rank.

5. **Photinia melanostigma**, *Hance in Journ. Bot.* 1882, p. 5.

KWANGTUNG: along the North river (*B. C. Henry*, hb. *Hance*, 21691!). Mus. Brit.

6. **Photinia prunifolia**, *Lindl. in Bot. Reg.* adnot. t. 1956; *Benth. Fl. Hongk.* p. 107; *Decne. in Nouv. Arch. du Mus.* x. p 141.

Photinia serrulata, β. prunifolia, *Hook. et Arn. Bot. Beech. Voy.* p. 185.

KWANGTUNG (*Beechey*! *Reeves*!); HONGKONG (*Champion*! *Wright*! *Ford*!); LUCHU ARCHIPELAGO (*Beechey*!). Mus. Brit.; Herb. Kew.

Bonin Islands.

Lindley's *P. prunifolia* was founded on Hooker and Arnott's plant, which differs from the Hongkong and Kwangtung specimens referred to this species by Bentham and others in having oblong obovate leaves, broadly rounded at the tip, and very coarsely crenate.

7. **Photinia pustulata**, *Lindl. in Bot. Reg.* adnot. t. 1956; *Walp. Rep.* ii. p. 57.

KWANGTUNG: near Canton (*Parkes*!), Macao (*Livingstone*!). Herb. Kew.

8. **Photinia serrulata**, *Lindl. in Trans. Linn. Soc.* xiii. p. 103 (excl. syn. Cratægus glabra, *Thunb.*); *Decne. in Nouv. Arch. du Mus.* x. p. 140; *Bot. Mag.* t. 2105.

Cratægus serratifolia, *Desf. Cat. Hort. Par.* 1829, p. 408, ex *Decne.*

Cratægus glabra, *Hortul.*

Photinia glabra, *Hortul.*

Photinia glabra, β. chinensis, *Maxim. in Mél. Biol.* ix. p. 179, et *in Bull. Soc. Bot. Mosc.* 1879, p. 20.

Photinia pustulata, *S. Moore in Journ. Bot.* 1878, p. 138, non *Lindl.*

CHEKIANG: Ningpo (*Everard*! *Forbes*!); FOKIEN: Amoy (*Fortune*, 30!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

9. **Photinia variabilis**, *Hemsl.*

Photinia villosa *et* P. lævis, *DC. Prodr.* ii. p. 631; *Maxim. in Mél. Biol.* ix. p. 176.

Cratægus villosa *et* C. lævis, *Thunb. Fl. Jap.* p. 204.

Stranvaisia digyna, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* i. p. 21.

Photinia serrulata, *Sieb. et Zucc. ibid.* p. 131, non *Lindl.*

Photinia villosa, *var.* formosana, *Hance in Ann. Sc. Nat.* 5me série, v. p. 212

Pourthiæa villosa, P. Calleryana, P. lucida, P. coreana, P. Oldhami, *et* P. Thunbergii, *Decne. in Nouv. Arch. du Mus.* x. pp. 147–149.

CHEKIANG: Ningpo (*Everard*!); KIANGSI: Kiukiang (*Maries*!); FORMOSA: without locality (*Swinhoe*!), Tamsui (*Oldham*, 99!); HUPEH: Ichang and Patung districts (*A. Henry*!); COREA: Port Chusan (*Wilford*, 967!). Mus. Brit.; Herb. Kew.

Generally spread in Japan.

1. **Stranvæsia Calleryana**, *Decne. in Nouv. Arch. du Mus.* x. p. 179.

KWANGTUNG: around Canton (*Calléry*, 38, ex *Decaisne*).

We have not identified anything in the London herbaria with this; but the description reads very much like *Photinia variabilis.*

2. **Stranvæsia undulata**, *Decne. in Nouv. Arch. du Mus.* x. p. 179.

HUPEH: on the high hills, Patung district (*A. Henry*!); KWEICHAU (*Perny* ex *Decaisne*). Herb. Kew.

We have seen no authenticated specimen of this species; but we refer Henry's copious flowering and fruiting specimens to it with little doubt, though Decaisne describes it only in the fruiting state. From Dr. Henry's notes, it bears flowers in a shrubby state five feet high, while in other localities it is a tree from twenty to thirty feet high.

1. **Raphiolepis indica**, *Lindl. in Bot. Reg.* t. 468; *DC. Prodr.* ii. p. 630; *Benth. Fl. Hongk.* p. 107; *Maxim. in Mél. Biol.* ix. p. 181.

Raphiolepis phæostemon, *Lindl. Coll. Bot.* adnot. t. 3; *Bot. Reg.* t. 468, ex *Lindl.*

Raphiolepis rubra, *Lindl. Coll. Bot.* t. 3; *Miq. in Journ. de Bot. Néerl.* i. p. 121.

Raphiolepis salicifolia, *Lindl. Coll. Bot.* adnot. t. 3; *Bot. Reg.* t. 652.

Cratægus indica, *Linn. Sp. Pl.* ed. 1, p. 477; *Bot. Mag.* t. 1726.

Cratægus rubra, *Lour. Fl. Cochinch.* p. 320.

Opa Metrosideros, *Lour. Fl. Cochinch.* p. 309, ex *Seem. in Journ. Bot.* 1863, p. 280.

Rhaphiolepis Loureiri, *Spreng. Syst. Veg.* v. p. 508?

Rhaphiolepis spiralis, *G. Don, Gen. Syst.* ii. p. 602; *Rœm. Synop.* iii. p. 113?

Mespilus spiralis, *Blume, Bijdr.* p. 1102; *Walp.*

Cratægus spiralis, *Steud. Nomencl. Bot.* ed. 2, ex *Rœmer.*

Rhaphiolepis sinensis, *Rœm. Synop.* iii. p. 114.

Mespilus sinensis, *Poir.* ex *Rœm.*

KWANGTUNG, HONGKONG, KWANGSI, and HAINAN, in all collections! Mus. Brit.; Herb. Kew.

2. **Raphiolepis japonica**, *Sieb. et Zucc. Fl. Jap.* i. p. 162, t. 85; *Maxim. in Mél. Biol.* ix. p. 181, et *in Engler's Bot. Jahrb.* vi. p. 63; *Bot. Mag.* t. 5510 (var. integerrima).

Rhaphiolepis Mertensii, *Sieb. et Zucc. Fl. Jap.* i. p. 164.

Mespilus Sieboldii, *Blume, Bijdr.* p. 1102, ex *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 41.

Laurus umbellata, *Thunb. Fl. Jap.* p. 175, ex *Maxim.*

Raphiolepis integerrima, *Hook. et Arn. Bot. Beech. Voy.* p. 263; *Walp. Rep.* ii. p. 57.

COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 245!); LUCHU ARCHIPELAGO (*Wright*! *Beechey*!). Herb. Kew.

Japan and Bonin Islands.

1. **Osteomeles anthyllidifolia**, *Lindl. in Trans. Linn. Soc.* xiii. p. 98, t. 8; *DC. Prodr.* ii. p. 633; *A. Gr. in Mem. Am. Acad.* n. s. vi. (1857) p. 388; *Maxim. in Mél. Biol.* ix. p. 182; *Hemsl. Bot. 'Challenger' Exped.* i. *Introd.* p. 18.

Osteomeles subrotunda, *C. Koch in Ann. Mus. Bot. Lugd.-Bat.* i. p. 250; *Miq. op. cit.* p. 41.

LUCHU ARCHIPELAGO (ex *A. Gray*).

Japan, and the Bonin, Sandwich, Maingaia, and Pitcairn Islands.

This shrub, of remarkable distribution, belongs to a genus otherwise exclusively Andean.

## 48. SAXIFRAGACEÆ: SAXIFRAGEÆ.

1. **Astilbe chinensis**, *Franch. et Sav. Enum. Pl. Jap.* i. p. 144 (var. japonica); *Franchet, Pl. David.* p. 121 (var. Davidii).

Hoteia chinensis, *Maxim. Prim. Fl. Amur.* p. 120; *Walp. Ann.* vii. p. 889.

Astilbe odontophylla, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 96.

CHIHLI: Jehol (*David*, 1925!), near Peking (*Bretschneider*! *Tatarinow*!); KIANGSI: Kiukiang (*Shearer*); HUPEH: Ichang and Patung districts (*A. Henry*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Amur and Japan.

2. **Astilbe polyandra**, *Hemsl.*, n. sp.

*Herba* gracilis, præter inflorescentiam glabra vel cito glabrescens, caulibus teretibus subnitidis. *Folia* circiter 18 poll. longa lataque, triternatisecta vel pinnatisecta; foliola membranacea, sessilia vel breviter petiolulata (terminale longiuscule), ovato-lanceolata vel anguste lanceolata (lateralia basi sæpe plus minus obliqua), longissime acuminata simul acutissima, usque ad 4 poll. longa, argute duplicato-serrata, venis primariis vix prominulis. *Flores* albi (*Henry*), polygamo-dioici, minuti, dense racemoso-

paniculati, ramulis numerosis ultimis floriferis gracillimis fere filiformibus pedicellisque laxe pubescentibus, pedicellis brevibus fructiferis recurvis; calycis glabri lobi angusti, subacuti; petala suborbicularia; stamina 15–20. *Carpella* sæpissime 3, libera, glabra, lævia, stylo brevi coronata; semina matura non visa.

HUPEH: Patung district (*A. Henry*!) Herb. Kew.

A very distinct species, having narrow, very acuminate, sharply serrate leaves, a very slenderly branched dense inflorescence, and minute polyandrous flowers with orbicular petals.

3. **Astilbe Thunbergi,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 96; *Franchet, Pl. David.* p. 122.

Hoteia Thunbergii, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* ii. p. 367; *Walp. Ann.* vii. p. 889, vix *Regel, Gartenfl.* 1863, p. 34, t. 389.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

Regel reduces *A. chinensis* to this, and Franchet suggests that *A. japonica* is another form of the same species; but though the technical characters separating them are slight, yet it is not difficult to distinguish the dried specimens.

1. **Rodgersia podophylla**, *A. Gr. in Mem. Amer. Acad.* n. s. vi. p. 389; *Franch. et Sav. Enum. Pl. Jap.* i. p. 144.

CHEKIANG: brought by J. Wilson from Chekiang hills, and cultivated at Shanghai (*W. Forbes*!). Herb. Kew.

Japan.

Var.? foliolis apice rotundatis, nec trilobatis.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

The specimens are in too young a state for exact determination.

1. **Saxifraga atrata,** *Engl. in Mél. Biol.* xi. p. 718.

KANSUH: in alpine regions at 10,000 to 11,000 feet (*Przewalski* ex *Engler*).

2. **Saxifraga cernua,** *Linn. Sp. Pl.* ed. 1, p. 403; *DC. Prodr.* iv. p. 36; *Hance in Journ. Bot.* 1878, p. 11; *Engler, Monogr.* p. 106.

CHIHLI: Siaowutaishan (*Hancock*, hb. *Hance*!). Mus. Brit.

Widely spread in temperate, alpine, and arctic regions of Europe, Asia, and North America.

3. **Saxifraga chinensis**, *Linn. Fl. Cochinch.* p. 281; *Maxim. in Mél. Biol.* viii. p. 601.

KWANGTUNG (ex *Loureiro*).

Both Engler and Seringe (in DC. Prodr. iv. p. 43) refer this to *S. sarmentosa*, but, as Maximowicz observes, it is probably, from the locality, a distinct species, and possibly the same as *S. cortusæfolia*.

4. **Saxifraga cortusæfolia**, *Sieb. et. Zucc. Fl. Jap. Fam. Nat.* i. p. 82; *Engler, Monogr.* p. 155; *Maxim. in Mél. Biol.* viii. p. 599 (excl. γ. Fortunei); *Hance in Journ. Bot.* 1882, p. 261.

ANWHEI: Wuhu (*Bullock*!); COREA: Soul Mountains (*Carles*!). Mus. Brit.; Herb. Kew.

Common in Japan.

5. **Saxifraga cuscutæformis**, *Loddiges, Bot. Cab.* t. 186; *Engler, Monogr.* p. 154; *Maxim. in Mél. Biol.* viii. p. 599; *Bot. Mag.* t. 2631.

Saxifraga sarmentosa, β. cuscutæformis, *Ser. in DC. Prodr.* iv. p. 43.

CHINA. Cultivated specimens only in the Kew Herbarium.

6. **Saxifraga Delavayi**, *Franchet in Bull. Soc. Bot. France*, xxxii. p. 6.

YUNNAN: Trongchan Mountains above Tali (*Delavay* ex *Franchet*).

7. **Saxifraga egregia**, *Engler in Mél. Biol.* xi. p. 712.

KANSUH: alpine regions, 10,000 to 13,000 feet (*Przewalski* ex *Engler*).

8. **Saxifraga Fortunei**, *Hook. in Bot. Mag.* t. 5377; *Engler, Monogr.* p. 155; *Franch. in Bull. Soc. Bot. France*, xxxii. p. 154.

Saxifraga cortusæfolia, γ. Fortunei, *Maxim. in Mél. Biol.* viii. p. 600.

CHINA. Cultivated specimens only in the Kew Herbarium.

Franchet records wild specimens of this species from Tibet and also from Japan; and he states that he agrees with Maximowicz that it is a variety of *S. cortusæfolia*.

9 **Saxifraga hirculoides**, *Engler in Mél. Biol.* xi. p. 711.

KANSUH: mountain-chain south of the Tetung river, at 10,000 to 13,000 feet (*Przewalski* ex *Engler*).

10. **Saxifraga Hirculus**, *Linn. Sp. Pl.* ed. 1, p. 402; *DC. Prodr.* iv. p. 44; *Engler, Monogr.* p. 122, et *in Mél. Biol.* xi. p. 710 (forma vestita); *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 392.

KANSUH: in the same locality as the last (*Przewalski* ex *Engler*).

Arctic and alpine regions of Europe, Asia, and North America.

11. **Saxifraga nana**, *Engler in Mél. Biol.* xi. p. 720.

KANSUH: mountains north of the Tetung river (*Przewalski* ex *Engler*).

12. **Saxifraga pekinensis**, *Maxim. in Prim. Fl. Amur.* p. 120, in nota; *Franchet, Pl. David.* p. 123.

CHIHLI: near Peking (ex *Maximowicz*), Pohuashan (*David*, 2318, ex *Franchet*).

13. **Saxifraga Przewalskii**, *Engler in Mél. Biol.* xi. p. 715.

KANSUH: alpine regions north of the Tetung, at 13,000 to 14,000 feet (*Przewalski* ex *Engler*).

Also in Mongolia.

14. **Saxifraga Rossii**, *Oliv. in Hook. Ic. Pl.* xiii. p. 46, t. 1258; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382.

SHINGKING: Corean Gate (*Ross*!), between Moukden and Tungcheshien (*James*!); COREA: Soul Mountains (*Carles*!). Mus. Brit.; Herb. Kew.

Also in Mandshuria.

15. **Saxifraga rotundifolia**, *Linn. Sp. Pl.* ed. 1, p. 403; *Ledeb. Fl. Ross.* ii. p. 217; *Sternb. Rev. Sax.* p. 17, t. 5; *Engler, Monogr.* p. 112.

COREA: Changpeishan Mountains, on the borders of Mandshuria (*James*!). Herb. Kew.

Europe and Western Asia, but hitherto not in North India, nor, so far as we are aware, in Central Asia.

16. **Saxifraga sarmentosa**, *Linn. f. Suppl.* p. 240; *DC. Prodr.* iv. p. 43; *Engler, Monogr.* p. 153; *Maxim. in Mél. Biol.* viii. p. 597, et *Bull. Soc. Nat. Mosc.* 1879, p. 21; *Franchet, Pl. David.* p. 123; *Bot. Mag.* t. 92; *Jacq. Ic. Pl. Rar.* i. t. 80.

CHIHLI: near Peking (*Bunge*!); KIANGSU: Shanghai (*Forbes*!); CHEKIANG: Ningpo (*Hancock*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Watters*!); HUPEH: Ichang (*A. Henry*!);

SHENSI or KANSUH: on the Tsunglin range (*Piasezki* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Japan.

17. **Saxifraga** (§ **Astilboides**, *Hemsl.*) **tabularis**, *Hemsl.*, n. sp.

*Herba* scaposa. *Folia* longissime petiolata, membranacea, peltata, 1–3 ped. diametro, breviter plurilobata, simul dentata, lobis latis acuminatis, utrinque parcissime setulosa, demum glabra. *Scapus* 3–4½ ped. altus, folia superans, superne dense ramosus modo *Astilbeæ*, furfuraceus, multiflorus. *Flores* parvi, albi; calycis lobi 5, late ovato-oblongi rotundati; petala 5, obovato-oblonga; stamina 8 (an semper?), filamentis filiformibus nudis; ovarium semisuperum, 2-loculare, stylis brevibus crassis divergentibus; ovula in loculis circiter 6. *Fructus* deest.

SHINGKING: hills near Moukden and on the Yaloo river; also northward on the Sungari river (*James*!). Herb. Kew.

A very distinct and remarkable species, combining the inflorescence of *Astilbe* and *Rodgersia* with the floral structure of *Saxifraga*. The flowers are probably polygamous, and the ovules rudimentary in the flowers examined. The Japanese *S. tellimoides*, Maxim., and the North-American *S. peltata*, Torr., resemble it in foliage, but the inflorescence and flowers are totally different.

18. **Saxifraga tangutica**, cum var. **minutiflora**, *Engler in Mél. Biol.* xi. p. 714.

KANSUH: mountains of Mudshik, at 10,000 to 11,000 feet (*Przewalski* ex *Engler*).

19. **Saxifraga unguiculata**, *Engler in Mél. Biol.* xi. p. 716 (varietates).

Saxifraga serpyllifolia, *var.* Pallasiana, *Hance in Journ. Bot.* 1878, p. 106, non *Sternb.*

CHIHLI: Siaowutaishan (*Hancock*!); KANSUH: various localities, 10,000 to 11,000 feet (*Przewalski* ex *Engler*). Mus. Brit.

20. **Saxifraga**, species nova? Folia desunt; scapus gracilis, nudus, glaber, pauciflorus, floribus rubris.

SZECHUEN: Ramala mountains (*Gill*!). Mus. Brit.

This is very distinct from any other Chinese species that we have seen, and apparently equally so from the new species described by Engler, which we have not seen.

1. **Tiarella polyphylla**, *Don, Prodr. Fl. Nep.* p. 210; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 399; *Hook. Ic. Pl.* xvi. t. 1584.

HUPEH: Patung district (*A. Henry*!); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz* in litt.). Herb. Kew.

Central and Eastern Himalayas and in Japan.

1. **Chrysosplenium alternifolium**, *Linn. Sp. Pl.* ed. 1, p. 398; *DC. Prodr.* iv. p. 48; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 400; *Maxim. in Mél. Biol.* ix. p. 761 (varietates); *Franchet, Pl. David.* p. 123.

CHIHLI: Jehol (*David*, 1817, ex *Franchet*), Siaowutaishan (*Hancock*!); SHINGKING (*James*!). Mus. Brit.; Herb. Kew.

Arctic and alpine regions of Europe, Asia, and North America.

2. **Chrysosplenium axillare**, *Maxim. in Mél. Biol.* ix. p. 758, et xi. p. 225.

KANSUH (*Przewalski* ex *Maximowicz*).

3. **Chrysosplenium Davidianum**, *Decne.* ex *Maxim. in Mél. Biol.* ix. p. 762; *Franchet in Bull. Soc. Bot. France*, xxxii. p. 6.

YUNNAN: Lankienho, near Lankong (*Delavay* ex *Franchet*).

Also in Chinese Tibet.

4. **Chrysosplenium Delavayi**, *Franchet in Bull. Soc. Bot. France*, xxxii. p. 7.

YUNNAN: Lankienho, above Lankong (*Delavay* ex *Franchet*).

5. **Chrysosplenium flagelliferum**, *Schmidt, Fl. Sachal.* no. 176; *Maxim. in Mél. Biol.* ix. p. 763; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382.

SHINGKING: Kwandien (*Ross*!). Herb. Kew.

Dahuria to Sachalin and Japan.

6. **Chrysosplenium Griffithii**, *Hook. f. et Thoms. in Journ. Linn. Soc.* ii. p. 74; *Hook. f. Fl. Brit. Ind.* ii. p. 401; *Maxim. in Mél. Biol.* ix. p. 759; *Franchet in Bull. Soc. Bot. France*, xxxii. p. 6.

YUNNAN: shady places above the Pass of Koulapo, near Hokin (*Delavay* ex *Franchet*).

Bhotan and Chinese Thibet.

7. **Chrysosplenium nudicaule,** *Bunge in Ledeb. Fl. Alt.* ii. p. 114; *Ledeb. Ic. Pl. Ross.* t. 405; *Maxim. in Mél. Biol.* ix. p. 759.

KANSUH (*Przewalski* ex *Maximowicz*).

Altai to Kamtschatka.

8. **Chrysosplenium sinicum,** *Maxim. in Mél. Biol.* ix. p. 769.

KANSUH (*Przewalski* ex *Maximowicz*).

9. **Chrysosplenium sphærospermum,** *Maxim. in Mél. Biol.* ix. p. 770, et xi. p. 227.

Chrysosplenium, sp. nov.?, *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382.

CHIHLI: Siaowutaishan (*Mœllendorff* ex *Maximowicz*); SHING-KING: east of Fungchung (*Ross*!); Moukden to Yaloo river (*Webster*!); COREA: Soul mountains (*Carles*!). Herb. Kew.

Japan.

10. **Chrysosplenium trachyspermum,** *Maxim. in Mél. Biol.* xi. p. 226.

KANSUH (*Przewalski* ex *Maximowicz*).

11. **Chrysosplenium uniflorum,** *Maxim. in Mél. Biol.* xi. p. 223.

KANSUH (*Przewalski* ex *Maximowicz*).

12. **Chrysosplenium yunnanense,** *Franchet in Bull. Soc. Bot. France*, xxxii. p. 7.

YUNNAN: Lankienho, above Lankong (*Delavay* ex *Franchet*).

1. **Oresitrophe rupifraga,** *Bunge, Enum. Pl. Chin. Bor.* p. 31; *Walp. Rep.* v. p. 828; *Hance in Journ. Bot.* 1875, p. 132.

CHIHLI: near Peking (*Bunge*!); Pohuashan (*Bretschneider*!). Mus. Brit.; Herb. Kew.

1. **Parnassia foliosa,** *Hook. f. et Thoms. in Journ. Linn. Soc.* ii. p. 79, et *Hook. f. Fl. Brit. Ind.* ii. p. 402; *Drude in Linnæa*, xxxix. p. 313; *S. Moore in Journ. Bot.* 1877, p. 292.

Parnassia Nummularia, *Maxim. in Linnæa*, xxxix. p. 313.

KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

Khasia mountains and Japan.

2. **Parnassia mysorensis,** *Heyne in Wight et Arn. Prodr. Fl. Penins. Ind. Or.* p. 35; *Wight, Ill. Ind. Bot.* t. 21; *Drude in*

*Linnæa*, xxxix. p. 317; *Hook. f. Fl. Brit. Ind.* ii. p. 402; *Franchet in Bull. Soc. Bot. France*, xxxii. p. 8.

YUNNAN: Heechanmen, 9000 to 10,000 feet (*Delavay* ex *Franchet*).

Eastern Himalaya, Khasia, and the mountains of the western peninsula of India.

3. **Parnassia oreophila**, *Hance in Journ. Bot.* 1878, p. 106.

CHIHLI: Siaowutaishan (*Hancock*!). Mus. Brit.

4. **Parnassia palustris**, *Linn. Sp. Pl.* ed. 1, p. 273; *DC. Prodr.* i. p. 320; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 469; *Hook. f. Fl. Brit. Ind.* ii. p. 401; *Drude in Linnæa*, xxxix. p. 307.

CHIHLI: near Peking (*Bretschneider*, hb. *Forbes*!); COREA: Chemulpo (*Carles*!). Herb. Kew.

5. **Parnassia Wightiana**, *Wall. in Wight et Arn. Prodr. Fl. Penins. Ind. Or.* p. 35; *Wight, Ill. Ind. Bot.* t. 21; *Hook. f. Fl. Brit. Ind.* ii. p. 402; *Drude in Linnæa*, xxxix. p. 314; *Franchet in Bull. Soc. Bot. France*, xxxii. p. 8.

FOKIEN: Amoy (*Swinhoe*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); YUNNAN: Hotha (*Anderson*!). Herb. Kew.

Mountains of Khasia and the western peninsula of India.

Var. **microblephara**, *Franchet in Bull. Soc. Bot. France*, xxxii. p. 8.

YUNNAN: Koulapo, between Tali and Hokin (*Delavay* ex *Franchet*).

## 48. SAXIFRAGACEÆ: HYDRANGEÆ.

1. **Hydrangea aspera**, *D. Don, Prodr. Fl. Nep.* p. 211; *Hook. f. Fl. Brit. Ind.* ii. p. 104.

Hydrangea vestita, *var.* fimbriata, *Wall.*; *DC. Prodr.* iv. p. 14.

HUPEH: Ichang and Patung districts, common and variable (*A. Henry*!); SZECHUEN: Chungching (*Bourne*!). Herb. Kew.

Kumaon to Sikkim.

Dr. Henry sends copious specimens representing a variety of forms of *Hydrangea*, which we think cannot be specifically separated from each other nor from the Indian species to which we refer them; yet the extreme forms are very different from

each other. The Javan *Hydrangea oblongifolia* of Blume is also, perhaps, a form of this species.

Var. ? **macrophylla**, *Hemsl.*; foliis late lanceolatis fere pedalibus distincte calloso-serrulatis venis primariis lateralibus utrinque 6–10.

HUPEH: Nanto and mountains to the northward (*A. Henry*!). Herb. Kew.

This is perhaps nearest the Indian form or typical *aspera*.

Var. ? **angustifolia**, *Hemsl.*; foliis lineari-lanceolatis, minute serrulatis venis primariis lateralibus utrinque 6 insigniter arcuatis, floribus multo minoribus.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

2. **Hydrangea chinensis**, *Maxim. Revis. Hydrang. As. Or.* p. 7; *Hance in Journ. Bot.* 1878, p. 11.

KIANGSU: Chinkiang (*Bullock in* hb. *Forbes*!); KIANGSI: Kiukiang (*Maries*!); FOKIEN: Amoy (*Fortune*, 42!); FORMOSA: Tamsui (*Oldham*, 110!), Kelung (*Ford*!); hills about the north-east (*Wilford*!), Sintiam (*Hancock*!). Mus. Brit.; Herb. Kew.

3. **Hydrangea Hortensia**, *DC. Prodr.* iv. p. 15; *Maxim. Revis. Hydrang. As. Or.* p. 11 (varietates plures).

Hydrangea Azisai, *Sieb. in Nov. Act. Nat. Cur.* xiv. 2. p. 690; *Sieb. et Zucc. Fl. Jap.* i. p. 104, t. 51.

Hydrangea Otaksa, *Sieb. et Zucc. loc. cit.* t. 52; H. japonica, *Sieb. et Zucc. loc. cit.* t. 53; H. Belzonii, *Sieb. et Zucc. loc. cit.* t. 55; H. acuminata, cum var. Buergeri, *Sieb. et Zucc. loc. cit.* t. 56 et 57; H. stellata, *Sieb. et Zucc. loc. cit.* t. 59.

Primula mutabilis, *Lour. Fl. Cochinch.* p. 104.

CHEKIANG (*Fortune*, 61, ex *Maximowicz*); KIANGSI: Kiukiang (*Shearer*!); LUCHU ARCHIPELAGO: Cleopatra Island (*Wright*!). Mus. Brit.; Herb. Kew.

Commonly cultivated in China and Japan, and presenting some very distinct variations. We have seen no specimens of undoubted wild origin.

4. **Hydrangea (§ Calyptranthe) longipes**, *Hemsl.*, n. sp.

*Frutex* erectus 2–3-pedalis (*A. Henry*), caulibus teretibus gracilibus cito glabrescentibus brunneus vel stramineis. *Folia* longissime petiolata, membranacea, ovato-rotundata vel cordato-rotundata, absque petiolo 3–5 poll. longa, 2–4 poll. lata, longe acuteque acuminata, crebre serrulata, utrinque præcipue subtus

appresse setulosa, simul scabrida, supra tarde glabrescentia, subtus pallidiora, venis primariis lateralibus circiter 5–7 sat conspicuis; petiolus subteres, gracilis, usque ad 4 poll. longus. *Cymæ* terminales, planæ, 4–5 poll. diametro, densiusculæ, dense appresseque setosæ, pedicellis florum radiantium pollicaribus gracilibus patentibus, pedicellis florum fertilium brevisissimis; florum radiantium lobi calycini rotundati, latiores quam longi, nervosi, glabri, integri, 5–8 lineas lati. *Flores* parvi, albidi (*A. Henry*), glabri; calycis dentes parvi vel minuti; petala apice cohærentia et conjuncta cadentia; stamina 10, filamentis longissimis; ovarium omnino inferum, 2-loculare, stylis glabris crassis divergentibus. *Capsula* globosa, costata, circiter sesquilineam diametro; semina numerosa, oblonga, acuta, nitida, costata.

HUPEH: Nanto and mountains to the northward (*A. Henry*!). Herb. Kew.

A very distinct species resembling *H. scandens*, Maxim. (*H. petiolaris*, Sieb. et Zucc.), in the shape of the leaves and in the very long petioles.

Var. **lanceolata**, *Hemsl.*; foliis lanceolatis basi cuneatis absque petiolo longissimo usque ad 5½ poll. longis.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

Except in the very different shape of the leaves, this does not appear to differ from our type.

5. **Hydrangea Mœllendorffi,** *Hance in Journ. Bot.* 1874, p. 177.

KIANGSI: Kiukiang (*Mœllendorff*!). Mus. Brit.

6. **Hydrangea paniculata,** *Sieb. in Nov. Act. Nat. Cur.* xiv. 2. p. 599; *DC. Prodr.* iv. p. 666; *Sieb. et Zucc. Fl. Jap.* i. p. 115, t. 61; *Maxim. Revis. Hydrang. As. Or.* p. 9 (varietates).

FOKIEN: Amoy (*Swinhoe*!). Herb. Kew.

Japan.

Maximowicz states that this is the only arboreous species in Japan, where it attains a height of twenty-five feet. It is generally cultivated in Japan, and the Amoy specimen cited above may have been taken from a garden.

7. **Hydrangea vestita,** *Wall. Tent. Fl. Nep.* t. 49; *Hook. f. Fl. Brit. Ind.* ii. p. 405; *Maxim. Revis. Hydrang. As. Or.* p. 10 (var. pubescens).

CHIHLI: Siaowutaishan (*Mœllendorff*!), near Peking (*Bretschneider*! *David*! Mus. Brit.; Herb. Kew.

The typical plant inhabits the mountains of North India, from Kumaon to Bhotan and Khasia.

1. **Pileostegia viburnoides,** *Hook. f. et Thoms. in Journ. Linn. Soc.* ii. p. 76, t. 2; *Hook. f. Fl. Brit. Ind.* ii. p. 405; *Maxim. Revis. Hydrang. As. Or.* p. 18 (var. parviflora, *Oliv. in sched.*); *Hance in Journ. Bot.* 1874, p. 260, et 1887, p. 12; *Engler, Jahrb.* vi. p. 61.

KIANGSI: Kiukiang (*Mœllendorff*!); FORMOSA: Tamsui (*Oldham*, 1071!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); KWANGTUNG: Lofaushan (*Ford*!); LUCHU ARCHIPELAGO (*Döderlein* ex *Engler*!). Mus. Brit.; Herb. Kew.

Khasia mountains.

1. **Dichroa febrifuga,** *Lour. Fl. Cochinch.* p. 301; *Benth. Fl. Hongk.* p. 128; *Maxim. Revis. Hydrang. As. Or.* p. 2; *Hook. f. Fl. Brit. Ind.* ii. p. 406.

Adamia versicolor, *Fortune in Journ. Hort. Soc. Lond.* i. p. 298; *Lindl. et Paxt. Fl. Gard.* i. t. 5; *Belg. Hort.* v. t. 1.

Adamia chinensis, *Gard. et Champ. in Hook. Kew Journ. Bot.* i. p. 311.

Adamia cyanea, *Wall. Tent. Fl. Nep.* p. 46, t. 36; *Pl. As. Rar.* t. 213; *Bot. Mag.* t. 3046.

Cyanitis sylvatica, *Reinw. in Bl. Bijdr.* p. 921; *DC. Prodr.* iv. p. 16.

Dichroa cyanitis *et* D. latifolia, *Miq. Fl. Ind. Bat.* i. pp. 721, 722.

FOKIEN: Amoy (*Swinhoe*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Urquhart*! *Champion*! *Wilford*!). Mus. Brit.; Herb. Kew.

Western Himalaya and Khasia mountains, Malay Archipelago, and Philippine Islands.

1. **Deutzia discolor,** *Hemsl.*, n. sp.

*Frutex* 6–7-pedalis (*A. Henry*), ramis teretibus glabris cortice cito deciduo, ramulis lateralibus floriferis gracilibus squamis minutis stellatis multiradiatis parce obsitis. *Folia* breviter petiolata, papyracea, discoloria, oblongo-lanceolata, 2–3½ poll. longa, apiculata vel subobtusa, basi subcuneata vel rotundata, crebre calloso-serrulata, utrinque (subtus densissime) squamis minutis multiradiatis vestita, venis primariis lateralibus utrinque 3–4 apicem versus excurrentibus subtus elevatis. *Cymæ* laxæ, paucifloræ, pedicellis elongatis gracillimis. *Flores* albi (*A. Henry*), 9–12 lineas diametro; calycis densissime lepidoti lobi lineari-

anceolati, 2–3 lin. longi, persistentes; petala late ovalia, extus tellato-lepidota; stamina 10, alterna breviora, filamentis late petaloideis, apice late bilobis, ovarium 3–4-loculare, vertice densissime stellato-lepidotum, stylis elongatis infra medium lepidotis persistentibus. *Capsula* non visa.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

The loose inflorescence and very slender pedicels associated with long narrow calyx-lobes characterize this species. The filaments, too, are perhaps more broadly petaloid than in any other species.

2. **Deutzia grandiflora,** *Bunge, Enum. Pl. Chin. Bor.* p. 30; *Walp. Rep.* ii. p. 152; *Maxim. Revis. Hydrang. As. Or.* p. 30, t. 3. figg. 1–13; *Hance in Journ. Bot.* 1875, p. 132; *Franchet, Pl. David.* p. 125, et *in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 217; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382; *Maxim. Bull. Soc. Nat. Mosc.* 1879, p. 21.

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Tatarinow*! *Carles*! *Hancock*! *Bushell*!), Jehol (*David,* 1770!); SHINGKING: Kwandien, Hingjing, and Fungwangshan (*Ross*!), Moukden to Yaloo river (*Webster*!); COREA: Soul mountains (*Carles*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*). Mus. Brit.; Herb. Kew.

3. **Deutzia parviflora,** *Bunge, Enum. Pl. Ch. Bor.* p. 31; *Walp. Rep.* ii. p. 152; *Maxim. Revis. Hydrang. As. Or.* p. 33, t. 3. figg. 18–32; *Regel, Gartenfl.* 1862, t. 370 (var. amurensis); *Hance, in Journ. Bot.* 1875, p. 132; *Franchet, Pl. David.* p. 124.

Deutzia corymbosa, *R. Br. in Royle, Ill. Himal. Pl.* p. 216, t. 46; *Hook. f. Fl. Brit. Ind.* ii. p. 406.

CHIHLI: near Peking (*Bunge*! *Bretschneider*!) Chuilungshan (*Hancock*!), Jehol (*David,* 1819!); SHINGKING: Peiling (*Webster*!); HUPEH: Ichang (*A. Henry*!); KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz,* in litt.). Mus. Brit.; Herb. Kew.

Kashmir to Bhotan, Mandshuria and Amur.

The delimitation of the species of this genus is difficult, and perhaps the Chinese plant is specifically different from the Indian.

4. **Deutzia scabra,** *Thunb. Fl. Jap.* p. 185; *DC. Prodr.* iv. p. 17; *Maxim. Revis. Hydrang. As. Or.* p. 24; *Hance in Journ.*

*Bot.* 1878, p. 11; *S. Moore in Journ. Bot.* 1878, p. 138; *Bot. Reg.* t. 1718; *Bot. Mag.* t. 3838.

Deutzia crenata, *Sieb. et Zucc. Fl. Jap.* i. p. 19, t. 6; *Maxim. Revis. Hydrang. As. Or.* pp. 22 et 45.

Deutzia crenata, δ. taiwanensis, *Maxim. loc. cit.* p. 23.

Deutzia Fortunei, *Carr. in Rev. Hort.* 1866, p. 338?

KIANGSU: Chinkiang (*Stronach*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 107!), Kelung (*Ford*!); HUPEH: Nanto and mountains to the northward (*A. Henry*!); LUCHU ARCHIPELAGO (*Wright*! *Carpenter*!). Mus. Brit.; Herb. Kew.

Common in Japan.

Var.? cymis paucifloris.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

This may prove a distinct species, though it presents no obvious character by which it might be distinguished.

5. **Deutzia staminea,** *R. Br. in Wall. Pl. As. Rar.* p. 82, t. 191; *Maxim. Revis. Hydrang. As. Or.* p. 29; *Hook. f. Fl. Brit. Ind.* ii. p. 407; *Bot. Reg.* 1847, t. 13.

HUPEH: Nanto and mountains to the northward (*A. Henry*!). Herb. Kew.

We do not feel quite satisfied that we have correctly referred this to the Indian species, which inhabits the Western Himalayas.

1. **Philadelphus coronarius,** *Linn.*; *Maxim. Revis. Hydrang. As. Or.* p. 36.

Var. **tomentosus,** *Hook. f. et Thoms. in Journ. Linn. Soc.* ii. p. 83; *Hook. f. Fl. Brit. Ind.* ii. p. 407; *Maxim. Revis. Hydrang. As. Or.* p. 41.

Philadelphus tomentosus, *Wall. in Royle, Ill. Himal. Pl.* p. 216, t. 46. fig. 1.

HUPEH: Nanto and mountains to the northward (*A. Henry*!). Herb. Kew.

Himalaya mountains.

Var. **pekinensis,** *Maxim. Revis. Hydrang. As. Or.* p. 42; *Franchet, Pl. David.* p. 125.

Philadelphus pekinensis, *Rupr. in Mél. Biol.* ii. p. 542 in nota ad *P. tenuifolium.*

CHIHLI: near Peking (*Bretschneider!*), Jehol (*David*, 1854 and 2219); SHINGKING: Black Bear Valley (*Ross!*); CHEKIANG: Ningpo (*Cooper!*); COREA: Chemulpo (*Carles!*). Mus. Brit.; Herb. Kew.

Japan.

Var. **tenuifolius,** *Maxim. Revis. Hydrang. As. Or.* p. 38; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382.

Philadelphus tenuifolius, *Rupr. et Maxim. in Rupr. erste bot. Nachr. Amurl. in Bull. Acad. Petersb.* 1856, p. 120.

SHINGKING: Chienshan (*Ross!*). Herb. Kew.

Mandshuria.

The aggregate species ranges from the South of Europe to Japan.

[*Philadelphus parviflorus* and *P. rubricaulis*, Carrière (Rev. Hort. 1871, p. 460), raised from Chinese seeds, we only know from the short description in the place cited.]

1. **Cardiandra alternifolia,** *Sieb. et Zucc. Fl. Jap.* i. p. 121, t. 65 et 66; *Walp. Rep.* ii. p. 377; *Maxim. Revis. Hydrang. As. Or.* p. 5; *Franchet, Pl. David.* p. 126.

KIANGSI: Kiukiang (*Forbes! David* ex *Franchet*).

Japan.

## 48. SAXIFRAGACEÆ: ESCALLONIEÆ.

1. **Itea chinensis,** *Hook. et Arn. Bot. Beech. Voy.* p. 188, t. 39; *Seem. Bot. Voy. 'Herald,'* p. 379; *Benth. Fl. Hongk.* p. 129; *Hook. f. Fl. Brit. Ind.* ii. p. 408; *Maxim. in Mél. Biol.* xii. p. 459 (var. subserrata).

SOUTH CHINA: without locality (*Millett! Potts! Seemann!*); FORMOSA: Tamsui (*Oldham*, 108, 109!), Kelung (*Ford!*); HONGKONG (*Champion! Harland! Hance!*); LUCHU ARCHIPELAGO (*Tashiro* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Khasia mountains and Japan.

2. **Itea ilicifolia,** *Oliv. in Hook. Ic. Pl.* xvi. t. 1538.

HUPEH: Ichang and neighbourhood, and Nanto and mountains to the northward (*A. Henry!*). Herb. Kew.

[*Itea Rosmarinus*, Rœm. et Schult. (Syst. Veg. v. p. 408), syn. *Cedrela Rosmarinus*, Lour. (Fl. Cochinch. p. 160), is an obscure plant, but it does not belong to this genus.]

## 48. SAXIFRAGACEÆ: Ribesieæ.

1. **Ribes alpinum,** *Linn. Sp. Pl.* ed. 1, p. 200; *Maxim. in Mél. Biol.* ix. p. 239 (varietates plures).

Shingking or Corea (*James*!); Hupeh: Patung (*A. Henry*!). Herb. Kew.

North Europe and North Asia, eastward to Japan.

2. **Ribes fasciculatum,** *Sieb. et Zucc. Fl. Jap. Fam. Nat.* i. p. 189; *Maxim. in Mél. Biol.* ix. p. 237 et 238, β. chinense; *S. Moore in Journ. Bot.* 1878, p. 138.

Ribes chifuense, *Hance in Journ. Bot.* 1875, p. 36.

China: without locality (*Fortune*, 31!); Shantung: Chefoo (*Swinhoe*!); Chekiang: Ningpo (*Everard*!); Kiangsi: Kiukiang (*Maries*!); Corea: Chemulpo (*Carles*?). Mus. Brit.; Herb. Kew.

Japan.

3. **Ribes grossularioides,** *Maxim. in Mél. Biol.* ix. 1873, p. 217.

Ribes macrocalyx, *Hance in Journ. Bot.* 1875, p. 35 et 132; *Franchet, Pl. David.* p. 126.

Chihli: Pohuashan (*Bretschneider*!). Mus. Brit.

Japan.

The Japanese and Chinese specimens which we have seen are so exactly alike that they might have been collected in the same locality.

4. **Ribes Meyeri,** *Maxim. in Mél. Biol.* ix. p. 232.

Ribes atropurpureum, β, *C. A. Mey. in Ledeb. Fl. Alt.* i. p. 268.

Chihli: near Peking (*Bretschneider*!). Herb. Kew.

5. **Ribes multiflorum,** *Kit. in Schult. Fl. Œster.* i. p. 433, ex *Maxim. in Mél. Biol.* ix. p. 229 (γ. mandshuricum).

Chihli: mountains west of Peking (*Tatarinow* ex *Maximowicz*), mountains east of Peking (*Fritsche* ex *Maximowicz*).

The species is a native of South-eastern Europe, and the variety is also found in Mandshuria.

6. **Ribes nigrum,** *Linn. Sp. Pl.* ed. 1, p. 201; *DC. Prodr.* iii. p. 481; *Maxim. in Mél. Biol.* ix. p. 222; *Hance in Journ. Bot.* 1875, p. 132; *Hook. f. Fl. Brit. Ind.* ii. p. 411.

Chihli: Pohuashan (*Bretschneider*!). Mus. Brit.

North Europe and North Asia.

7. **Ribes petræum**, *Wulf. in Jacq. Misc.* ii. p. 36; *DC. Prodr.* iii. p. 481; *Maxim. in Mél. Biol.* ix. p. 230; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382; *Franchet, Pl. David.* p. 127 (var. mongolica).

CHIHLI: Jehol (*David*, 1712, ex *Franchet*); SHINGKING: Yoongdien (*Ross*!). Herb. Kew.

Europe, Siberia, and Mandshuria.

8. **Ribes pulchellum**, *Turcz. in Ledeb. Fl. Ross.* ii. p. 196, et *in Fl. Baical.-Dahur.* i. p. 442; *Maxim. in Mél. Biol.* xi. p. 241; *Franchet, Pl. David.* p. 127.

CHIHLI: near Peking (*David*, 538, ex *Franchet*).

Siberia and Mongolia.

9. **Ribes stenocarpum**, *Maxim. in Mél. Biol.* xi. p. 228.

KANSUH: alpine woods (*Przewalski* ex *Maximowicz*).

## 49. CRASSULACEÆ.

1. **Crassula mongolica**, *Franchet, Pl. David.* p. 127.

CHIHLI: Jehol (*David* ex *Franchet*).

1. **Bryophyllum calycinum**, *Salisb. Parad. Lond.* t. 3; *DC. Prodr.* iii. p. 396; *Benth. Fl. Hongk.* p. 127; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 413; *Maxim. in Mél. Biol.* xi. p. 721; *Bot. Mag.* t. 1409.

Kalanchoe pinnata, *Pers. Syn. Pl.* i. p. 446; *Hance in Journ. Linn. Soc.* xiii. p. 103.

Crassula pinnata, *Linn. f. Suppl.* p. 191; *Lour. Fl. Cochinch.* p. 185.

FORMOSA (*Maries*!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Hinds*! *Champion*!). Mus. Brit.; Herb. Kew.

Supposed to be of African origin, though now generally dispersed in warm countries.

1. **Kalanchoe gracilis**, *Hance in Journ. Bot.* 1870, p. 6; *Maxim. in Mél. Biol.* xi. p. 722.

SOUTH-WEST FORMOSA (*Swinhoe*! *Gregory*!). Mus. Brit.; Herb. Kew.

2. **Kalanchoe laciniata**, *DC. Pl. Grasses*, t. 100; *Prodr.* iii. p. 395; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 415; *Maxim. in Mél. Biol.* xi. p. 722; *Ic. Braam*, fig. dextra.

Cotyledon laciniata, *Linn. Sp. Pl.* ed. 1, p. 430; *Lour. Fl. Cochinch.* p. 286.

CHINA (ex *Braam Ic.*); YUNNAN (*Anderson*!). Herb. Kew.

India, Java, and tropical Africa.

3. **Kalanchoe macrosepala**, *Hance in Journ. Bot.* 1870, p. 5; *Maxim. in Mél. Biol.* xi. p. 722.

HONGKONG: cultivated (*Hance*, 1723!). Mus. Brit.

4. **Kalanchoe spathulata**, *DC. Pl. Grasses*, t. 65; *Prodr.* iii. p. 395; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 414; *Hance in Journ. Bot.* 1870, p. 6; *Miq. in Journ. de Bot. Néerl.* i. p. 119; *Maxim. in Mél. Biol.* xi. p. 721.

FOKIEN: Amoy (*Hance*, 602!); YUNNAN (*Anderson*!); KWANGTUNG: Suheang (*Krone*!); LUCHU ARCHIPELAGO (*Wright*! *Weyrich*!). Mus. Brit.; Herb. Kew.

Tropical India, Burma, and Java.

1. **Cotyledon fimbriata**, *Turcz. Cat. Baical.* n. 469; *Hance in Journ. Linn. Soc.* xiii. p. 80; *Maxim. in Mél. Biol.* xi. p. 727.

Umbilicus fimbriatus, *Turcz. Fl. Baical.-Dahur.* i. p. 432; *Debeaux, Fl. Tchef.* p. 63.

Sedum fimbriatum, *Franchet, Pl. David.* p. 128.

CHIHLI: near Peking (*David*! *Bushell*!), Jehol (*David*, 2196, ex *Franchet*); SHANTUNG: Chefoo (ex *Debeaux*); KIANGSU: Shanghai (*Faber*!); CHEKIANG: Ningpo (*Faber*!). Mus. Brit.; Herb. Kew.

Mongolia and Dahuria.

β. **ramosissima**, *Maxim. in Mél. Biol.* xi. p. 728.

Umbilicus ramosissimus, *Maxim. Prim. Fl. Amur.* p. 472, in nota.

Sedum ramosissimum, *Franchet, Pl. David.* p. 128.

CHIHLI: near Peking (*Bretschneider*! *Bushell*!); HUPEH: Ichang (*A. Henry*!). Herb. Kew.

2. **Cotyledon leucantha**, *Ledeb. Fl. Alt.* ii. p. 198, et *Ic. Pl. Fl. Ross.* iv. t. 395.

Umbilicus leucanthus, *Ledeb. Fl. Ross.* ii. p. 173.

Umbilicus thyrsiflorus, *DC. Prodr.* xiii. p. 400.

Cotyledon thyrsiflora, *Maxim. in Mél. Biol.* xi. p. 726.

Cotyledon spinosa, *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 416, non *Linn.*

SHINGKING: Peiling (*Webster*!). Herb. Kew.

North India, Siberia, and Tibet.

3. **Cotyledon malacophylla,** *Pall. Voy.*, ed. Franç., iv. App. p. 695, t. 6. fig. 3; *Maxim. in Mél. Biol.* xi. p. 723; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 218.

Umbilicus malacophyllus, *DC. Prodr.* iii. p. 400; *Bunge, Enum. Pl. Chin. Bor.* p. 30.

Sedum malacophyllum, *Franchet, Pl. David.* p. 129.

CHIHLI: near Peking (*Bretschneider*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); SOUTH-EAST COREA (*Perry*!). Herb. Kew.

Dahuria to Sachalin and Japan.

4. **Cotyledon spinosa,** *Linn. Sp. Pl.* ed. 1, p. 429; *Maxim. in Mél. Biol.* xi. p. 725.

Umbilicus spinosus, *DC. Prodr.* iii. p. 400.

SHINGKING: Kaichow to Kiuchow (*Ross*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Foochow (*Perry*!). Mus. Brit.; Herb. Kew.

Ural mountains eastward to Mandshuria.

[There is an imperfect specimen of a *Cotyledon* in the Kew Herbarium from Shanghai, collected by Maingay, which is probably different from all of the foregoing.]

1. **Sedum Aizoon,** *Linn. Sp. Pl.* ed. 1, p. 430; *DC. Prodr.* iii. p. 402; *Ledeb. Fl. Ross.* ii. p. 183; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382; *Franchet, Pl. David.* p. 129, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 219; *Maxim. in Mél. Biol.* xi. p. 756 (varietates plures).

Sedum Maximowiczii, *Regel, Gartenfl.* 1866, p. 355, t. 528.

Sedum Pseudo-Aizoon, *Debeaux, Fl. Tchef.* p. 64.

Sedum hybridum, var., *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472, *non* S. hybridum, *Linn.*

CHIHLI: near Peking (*Bretschneider*!), Jehol (*David*, 2020, ex *Franchet*); SHINGKING: Chienshan (*Ross*!), near Moukden and elsewhere (*James*!), Peiling (*Webster*!); SHANTUNG: Chefoo (ex *Debeaux*); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Throughout Siberia and in Japan.

2. **Sedum albo-roseum,** *Baker in Refug. Bot.* i. t. 33; *Maxim. in Mél. Biol.* xi. p. 751.

SHINGKING (*Ross* ex *Maximowicz*).

Japan.

This, *S. Telephium,* and some of the allied species are very difficult to distinguish in the dried state. Masters (Gard. Chron. n. s. x. p. 337) refers *S. albo-roseum* to *S. erythrostictum,* Miq., while Maximowicz refers the latter to *S. Telephium.*

3. **Sedum Alfredi,** *Hance in Journ. Bot.* 1870, p. 7; *Maxim. in Mél. Biol.* xi. p. 768.

Sedum lineare, γ. floribundum, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 157, ex *Maxim.*

Sedum stellatum, *Lour. Fl. Cochinch.* p. 287? non *Linn.*

Sedum subtile, *Debeaux, Fl. Shangh.* p. 32?

CHEKIANG: Ningpo (*Forbes*!); FOKIEN (*De Grijs*!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Lienfashan (*A. Hance,* 15605!), Soongkong island (*Wright*!); COREAN ARCHIPELAGO (*Oldham*!). Mus. Brit.; Herb. Kew.

Japan.

Mr. C. B. Clarke had referred some of the leafless Chinese specimens of this species to *S. multicaule,* Wall., which is readily distinguished by its acute leaves.

4. **Sedum algidum,** *Ledeb. Fl. Alt.* ii. p. 194, et *Ic. Pl. Fl. Ross.* t. 418, γ. tanguticum, *Maxim. in. Mél. Biol.* xi. p. 731.

CHIHLI: Siaowutaishan (*Hancock* ex *Maximowicz*).

Altai to Northern Mongolia.

[*Sedum Anacampseros,* Linn. (Lour. Fl. Cochinch. p. 287), was probably a false determination.]

5. **Sedum angustum,** *Maxim. in Mél. Biol.* xi. p. 748.

KANSUH (*Przewalski* ex *Maximowicz*); HUPEH: Patung (*A. Henry*!). Herb. Kew.

6. **Sedum chrysastrum,** *Hance in Journ. Bot.* 1870, p. 6.

KWANGTUNG: West river (*Sampson,* hb. *Hance,* 15087!). Mus. Brit.

Very near *S. japonicum,* but the leaves are acute.

7. **Sedum drymarioides,** *Hance in Journ. Bot.* 1865, p. 379, 1874, p. 260, et *in Journ. Linn. Soc.* xiii. p. 80; *Walp. Ann.* vii. p. 920; *Maxim. in Mél. Biol.* xi. p. 772; *Franchet, Pl. David.* p. 130.

Sedum stellariæfolium, *Franchet, Pl. David.* p. 130.

Sedi n. sp., *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472, fide *Maxim.*

CHIHLI: near Peking (*Bretschneider*! *Williams*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and Nanto (*A. Henry*!); KWANGTUNG: near Shiuking (*Sampson*, hb. *Hance*, 12153!). Mus. Brit.; Herb. Kew.

Specimens in hb. Forbes, collected by Bretschneider in the mountains west of Peking, and named *S. drymarioides* by Maximowicz, agree exactly with Franchet's description of *S. stellariæfolium*; and as we have seen many intermediate forms, we have no hesitation in reducing the latter from the description alone. The species is very near the European *S. alsinæfolium*, All.

8. **Sedum dumulosum,** *Franchet in Nouv. Archiv.* v. t. 16. fig. 3, et *Pl. David.* p. 129.

CHIHLI: Pohuashan (*David*, 2288, ex *Franchet*).

9. **Sedum elatinoides,** *Franchet in Nouv. Archiv.* v. t. 16. fig. 2, et *Pl. David.* p. 131.

HUPEH: Ichang (*A. Henry*!); SHENSI: Hanchongfou (*David* ex *Franchet*).

We have seen no authenticated specimens of this species, but Dr. Henry's one specimen agrees well with the description.

10. **Sedum** (§ **Cepæa**), **filipes,** *Hemsl.*, n. sp. (Plate VII. A. figs. 1–3.)

*Herba* annua? 6–12 poll. alta, habitu *Sedi drymarioidei* glaberrima, caulibus gracilibus debilibus adscendentibus infra medium cito defoliatis, verticillatim vel dichotome ramosis. *Folia* inferiora non visa, caulina opposita vel 3–4-natim verticillata, subcarnosa, distincte petiolata (suprema excepta), rotundata, usque ad 8 lineas diametro, integra, rubro-punctata. *Flores* minuti, albi, in cymas corymbosas terminales laxiusculas dispositi, pedicellis gracillimis; sepala brevissima, obtusa; petala angusta, acuta. *Carpella* lata, sæpius 2–3-sperma, stylo brevi coronata; semina matura non visa.

HUPEH: Ichang and immediate neighbourhood, under a dripping rock (*A. Henry*!). Herb. Kew.

Var.? **major,** *Hemsl.*

Humilior, robustior, foliis usque 2 poll. longis, floribus duplo majoribus.

HUPEH: Nanto and mountains northward (*A. Henry*!). Herb. Kew.

There is little doubt that this is a variety, or rather form, of

*S. filipes*, differing mainly in size, which may have been due to the locality in which it grew.

11. **Sedum formosanum,** *N. E. Br. in Gard. Chron.* n. s. xxiv. p. 134.

CHEKIANG: Ningpo mountains (*Faber*!); FORMOSA: north-east (*Wilford*, 523!), Tamsui (*Oldham*, 255!), on rocks and cliffs near the sea, Kelung (*Ford*!); COREAN ARCHIPELAGO: Soutsik group (*Oldham*, 266!). Herb. Kew.

12. **Sedum japonicum,** *Sieb.* ex *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 156; *Maxim. in Mél. Biol.* xi. p. 766.

CHEKIANG: Chapu (*Oldham*, 16!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*). Herb. Kew.

Japan.

Clarke (in Hook. f. Fl. Brit. Ind. ii. p. 422) reduces this to *S. multicaule*, Wall., which we agree with Maximowicz in regarding as a distinct species.

13. **Sedum kamtschaticum,** *Fisch. in Ind. Sem. Hort. Petrop.* vii. p. 54; *Ledeb. Fl. Ross.* ii. p. 182; *Maxim. in Mél. Biol.* xi. p. 759.

Sedum Aizoon latifolium, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 155, fide *Maxim.*

SHINGKING: Kaichow to Kiuchow (*Ross*!); HUPEH: Patung district (*A. Henry*!); COREA: west coast, 39° N. (*Perry*!); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 264!), Tracey Island (*Oldham*, 265!). Herb. Kew.

Eastern Siberia, Mandshuria, Kamtschatka, and Japan.

14. **Sedum Kirilowi,** *Regel, Fl. Ajan.* in adnot. ad n. 114; *Maxim. in Mél. Biol.* xi. p. 733.

Rhodiola Kirilowi, *Regel*, ex *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472.

CHIHLI: mountains west of Peking (*Tatarinow* ex *Maximowicz*), Pohuashan (*Kirilow* ex *Maximowicz*; *Bretschneider*!). Herb. Kew.

15. **Sedum lineare,** *Thunb. Fl. Jap.* p. 187; *DC. Prodr.* iii. p. 410; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 156, excl. $\gamma$ et $\delta$, ex *Maxim. in Mél. Biol.* xi. p. 763; *Sitsu mon*, ii. fig. 9.

LUCHU ARCHIPELAGO (ex *Maximowicz*).

Maximowicz identifies a Luchu figure in the Japanese work cited with this species, which is otherwise a native of Japan.

16. **Sedum (§ Eusedum) polytrichoides,** *Hemsl.*, n. sp. (Plate VII. B. fig. 4.)

*Herba* humilis, glabra, cæspitosa, multicaulis, caulibus graciliusculis dense foliatis floriferis 3 poll. altis. *Folia* alterna, conferta, carnosula, linearia, subteretia, 3–4 lineas longa, obtusiuscula, basin versus latiora, infra insertionem deltoideo-producta. *Flores* breviter pedicellati, in cymas 2–4-ramosas terminales dispositi; sepala angusta, obtusiuscula, vix 2 lineas longa; petala linearia, acutissima, circiter 6 lineas longa, persistentia. *Carpella* lata, multisperma, stylo recto elongato coronata; semina oblonga, minute punctata.

CHEKIANG: Ningpo (*Faber* !). Herb. Kew.

A very distinct species, readily distinguished from all others with which we are acquainted by its moss-like habit.

17. **Sedum Przewalskii,** *Maxim. in Mél. Biol.* xi. p. 773.

KANSUH: alpine regions of the rivers Tetung and Yussunchatyma, at 9000 to 10,000 feet (*Przewalski* ex *Maximowicz*).

18. **Sedum Roborowskii,** *Maxim. in Mél. Biol.* xi. p. 771.

KANSUH: mountain woods along the Tetung, an affluent of the Hoangho, observed only in one place (*Przewalski* ex *Maximowicz*).

19. **Sedum sarmentosum,** *Bunge, Enum. Pl. Chin. Bor.* p. 30; *Walp. Rep.* ii. p. 262; *Maxim. in Mél. Biol.* xi. p. 764.

Sedum lineare, δ. contractum, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 156, fide *Maxim.*

CHIHLI: near Peking (*Bunge* ! *Bushell* ! *Bretschneider* ! *Skatchkoff* !); CHEKIANG: Ningpo (*Forbes* !); KIANGSI: Kiukiang (*Carmichael*, hb. *Forbes* !); HUPEH: Ichang and Nanto (*A. Henry* !); COREA: Chemulpo (*Carles* !); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 261 !); KANSUH: southern part (*Piasezki* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

A *Sedum* received at Kew from Dr. Duthie, purporting to have been collected at Nusseerabad by Col. Robarts, is probably this species.

20. **Sedum Sheareri,** *S. Moore in Journ. Bot.* 1875, p. 226.

KIANGSI: Kiukiang (*Shearer* !). Mus. Brit.; Herb. Kew.

21. **Sedum spectabile,** *Boreau in Mém. Soc. Acad. d'Angers,* xx. (1866) p. 116; *Maxim. in Mél. Biol.* xi. p. 750; *Refug. Bot.* i. t. 32; *Regel, Gartenfl.* t. 709.

Sedum Fabarium, *Lem. in Ill. Hort.* viii. t. 271.

Anacampseros spectabile, *Jord. et Fourr. Ic. Fl. Europ.* i. p. 37, t. 100.

It is not known where this is indigenous, but it is cultivated in China, frequently at Peking, according to Maximowicz; and Dr. Henry sends what we take for this species from Nanto, Hupeh. Herb. Kew.

Specimens in the Kew Herbarium from Peiling and Moukden, Shingking, collected by James and Webster, may be the wild state of this species.

22. **Sedum suboppositum,** *Maxim. in Mél. Biol.* xi. p. 740.

KANSUH: in alpine and sub-alpine regions, in the course of the Tetung river (*Przewalski* ex *Maximowicz*).

23. **Sedum subtile,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 156; *Debeaux, Fl. Shangh.* p. 32; *Franchet, Pl. David.* p. 131.

KIANGSU: Shanghai (ex *Debeaux*); KIANGSI: Kiukiang (*David* ex *Franchet*).

24. **Sedum Tatarinowii,** *Maxim. in Mél. Biol.* xi. p. 742.

CHIHLI: Inshan mountains, north of Peking (*Tatarinow* ex *Maximowicz*), mountains west of Peking (*Bretschneider* !). Herb. Kew.

25. **Sedum Telephium,** *Linn. Sp. Pl.* ed. 1, p. 430, excl. δ et ε, *DC. Prodr.* iii. p. 402; *Maxim. in Mél. Biol.* xi. p. 752 (varietates).

Sedum vulgare, *Link, et* S. purpureum, *Link, Enum. Pl. Hort. Berol.* i. p. 437.

Sedum Fabaria, *Koch, Syn. Fl. Germ.* ed. 1, i. p. 258; *Franchet, Pl. David.* p. 130 (var. mongolica).

Sedum purpurascens, *Koch, Syn. Fl. Germ.* ed. 2, i. p. 284.

Sedum erythrostictum, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 155, ex *Maxim.*

Mus. Brit.; Herb. Kew.

We have only seen cultivated specimens of this species from China, though it probably exists in a wild state, as it is found in the adjacent countries to the north.

26. **Sedum uniflorum**, *Hook. et Arn. Bot. Beech. Voy.* p. 263; *Walp. Rep.* ii. p. 261.

LUCHU ARCHIPELAGO (*Beechey*! *Wright*!). Herb. Kew.

The same or a closely allied species is in Oldham's Japan and Corean collections without a locality, and Hance's 17346, from the Sir James Hall Islands, Corea, is possibly the same.

27. **Sedum yantaiense**, *Debeaux, Fl. Tchef.* p. 65; *Maxim. in Mél. Biol.* xi. p. 762; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 218.

SHANTUNG: Chefoo (*Carmichael*, in hb. *Forbes*!); Chefoo, Yantai, &c. (ex *Debeaux*).

28. **Sedum**, sp. aff. *S. Sieboldii*; foliis tenuioribus, etc.

SHINGKING: Kaichow to Kiuchow (*Ross*, 257!). Herb. Kew.

There are imperfect specimens of several *Sedi* in the Kew Herbarium, chiefly from Ichang, which we have not been able to identify, and which may in part be undescribed.

1. **Penthorum sedoides**, *Linn. Sp. Pl.* ed. 1, p. 432; *DC. Prodr.* iii. p. 414; *Maxim. in Mél. Biol.* xi. p. 774; *Franchet, Pl. David.* p. 124, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 219.

Penthorum chinense, *Pursh, Fl. Am. Sept.* i. p. 323; *Regel, Fl. Ussur.* t. 6. figg. 1–4; *Debeaux, Fl. Shangh.* p. 32; *Hance in Journ. Bot.* 1867, p. 275.

Penthorum intermedium, *Turcz. in Bull. Soc. Nat. Mosc.* 1837, no. vii. p. 152.

Penthorum sedoides, *Linn.*, forma angustifolia, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 76.

CHIHLI: Jehol (*David*, 1976!); SHINGKING: Chienshan (*Ross*!); SHANTUNG (ex *Franchet*); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: near Canton (*Sampson*!). Mus. Brit.; Herb. Kew.

Mandshuria and Japan; and in North America, from Canada to Texas and Florida.

## 50. DROSERACEÆ.

1. **Drosera Burmanni**, *Vahl, Symb.* iii. p. 50; *DC. Prodr.* i. p. 318; *Benth. Fl. Hongk.* p. 129; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 424; *Wight, Ic. Pl. Ind. Or.* t. 944.

FOKIEN (*De Grijs* !); FORMOSA: Tamsui (*Oldham*, 113 !); KWANGTUNG: Pakhoi (*Playfair* !), Ookaisa (*Tate* !); HONGKONG (*Wright* !); HAINAN: Hoihow (*Hancock* !); LUCHU ARCHIPELAGO: Oosima (*Carpenter* !). Mus. Brit.; Herb. Kew.

Tropical and subtropical Asia, including Japan; Africa and Australia.

2. **Drosera indica**, *Linn. Sp. Pl.* ed. 1, p. 282; *DC. Prodr.* i. p. 319; *Hance in Journ. Bot.* 1880, p. 261; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 424; *Wight, Ic. Pl. Ind. Or.* t. 20.

CHINA or FORMOSA (*Swinhoe* !); FOKIEN: Amoy (*Hance*, 1425 !); KWANGTUNG: Pakhoi (*Playfair* !); HAINAN: between Hoihow and Kiungchow (*Hancock* !). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa and Australia, and extending into some subtropical regions, including South Japan.

3. **Drosera Loureiri**, *Hook. et Arn. Bot. Beech. Voy.* p. 167, t. 31; *Benth. Fl. Hongk.* p. 130, et *Fl. Austr.* ii. p. 460, in nota sub *D. spathulata*.

Drosera rotundifolia, *Lour. Fl. Cochinch.* p. 186, non *Linn.*

CHINA: without locality (*Beechey* !); HONGKONG (*Wilford* ! *Wright* ! *Champion* ! *Urquhart* ! *Hinds* !). Mus. Brit.; Herb. Kew.

Philippines, and probably identical, according to Bentham, *loc. cit.*, with *D. spathulata*, Labill., a common Australian species.

4. **Drosera peltata**, *Sm. in Willd. Sp. Pl.* i. p. 1546; *DC. Prodr.* i. p. 319; *Benth. Fl. Austr.* ii. p. 465; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 424 (var. lunata).

Drosera lunata, *Buch.-Ham. in DC. Prodr.* i. p. 319; *Hook. Ic. Pl.* t. 54.

CHINA: without locality (*Fortune*, 49 !); CHEKIANG: Ningpo (*Hancock* !); Tahoo lake (*Carles* !); FOKIEN: Foochow (*Carles* !); KWANGTUNG: Pakwan and White Cloud mountains (*Sampson* !). Mus. Brit.; Herb. Kew.

Tropical and subtropical Asia and Australia.

[*Drosera umbellata*, Lour. (Fl. Cochinch. p. 186), is an obscure plant, and from the description it is improbable that it belongs to the genus. Bretschneider (Early Res. p. 151) states that Loureiro applies the same Chinese name to *Eriocaulon*.]

## 51. HAMAMELIDEÆ.

1. **Distylium racemosum**, *Sieb. et Zucc. Fl. Jap.* i. p. 178, t. 94; *Benth. Fl. Hongk.* p. 133; *Engler, Jahrb.* vi. p. 61.

HONGKONG (*Champion*! *Wright*! *Wilford*! *Ford*!); LUCHU ARCHIPELAGO (*Beechey*! *Wright*!). Mus. Brit.; Herb. Kew.

Japan.

Var. **chinense**, *Franchet in litt.* "Arbuscula vix tripedalis; folia parva pollicaria vel minora, elliptica integra vel sæpius oblongo-lanceolata, apice nunc obscure nunc acute paucidentata."

HUPEH: Ichang (*A. Henry*!); SZECHUEN: rocks on the banks of the Blue river, at Kouimen (*Delavay*!). Herb. Kew.

This variety is very different from the typical species (a tree twenty-five feet high); but we believe that Mr. Franchet is right in his estimate of its rank.

1. **Corylopsis multiflora**, *Hance in Ann. Sc. Nat.* 4me série, xv. p. 224; *Walp. Ann.* vii. p. 936.

FOKIEN: Ankoe, near the western limits of the province (*De Grijs*, hb. *Hance*, 6684!). Mus. Brit.; Herb. Kew.

2. **Corylopsis spicata**, *Sieb. et Zucc. Fl. Jap.* i. p. 47, t. 19.

KIANGSI: Kiukiang (*Shearer*! *Maries*!). Herb. Kew.

Japan.

The Chinese specimens have oblong-obovate leaves.

1. **Hamamelis japonica**, *Sieb. et Zucc. in Abhandl. math.-phys. Kl. baier. Akad.* iv. 2. p. 193; *Franch. et Sav. Enum. Pl. Jap.* i. p. 163, et ii. p. 368; *Bot. Mag.* t. 6659.

Hamamelis virginiana, *Linn., var.* japonica, *Franchet, Pl. David.* p. 131.

Hamamelis arborea, *Mast. in Gard. Chron.* n. s. xv (1881), p. 205, fig. 38, et p. 216.

KIANGSI: Kiukiang (*David*, 877, ex *Franchet*).

Japan.

2. **Hamamelis mollis**, *Oliv. in Hook. Ic. Pl.* xviii. ined.

KIANGSI: Kiukiang (*Maries*!); HUPEH: Patung District (*A. Henry*!). Herb. Kew.

1. **Loropetalum chinense**, *R. Br. in Abel's Voy. to China, App. B*, p. 375 in nota; *S. Moore in Journ. Bot.* 1878, p. 138; *Hance in Journ. Bot.* 1878, p. 226; *Maxim. Fl. As. Or. Fragm.* p. 22.

Hamamelis chinensis, *R. Br. loc. cit.* cum tab.; *DC. Prodr.* iv. p. 269.

CHEKIANG: Tahu lake (*Carles*!), Ningpo (*Everard*! *Cooper*! *Hancock*!); CHUSAN ARCHIPELAGO (hb. *Griffith*!); KIANGSI: Kiukiang (*Maries*! *Shearer*!); FOKIEN: Amoy (*Fortune*, 74! *Swinhoe*!); HUPEH: Ichang, Patung, and Nanto (*A. Henry*!);

KWANGTUNG: North river (*Sampson & Hance*, 548! *Ford*!). Mus. Brit.; Herb. Kew.

Khasia mountains, India.

2. **Loropetalum subcordatum**, *Oliv. in Hook. Ic. Pl.* xv. p. 13, t. 1417.

Tetrathyrium subcordatum, *Benth. Fl. Hongk.* p. 133.

HONGKONG (*Wilford*! *Ford*!). Mus. Brit.; Herb. Kew.

1. **Eustigma oblongifolium**, *Gardn. et Champ. in Hook. Kew Journ. Bot.* i. p. 312; *Benth. ibid.* iv. p. 165, et *Fl. Hongk.* p. 132; *Walp. Ann.* ii. p. 274; *Seem. Bot. Voy. 'Herald,'* p. 380, t. 95.

HONGKONG (*Wright*! *Harland*! *Champion*! *Wilford*! *Ford*!). Mus. Brit.; Herb. Kew.

1. **Rhodoleia Championi**, *Hook. Bot. Mag.* t. 4509; *Walp. Ann.* ii. p. 273; *Benth. Fl. Hongk.* p. 131.

Rhodoleia formosa, *Champ.*; *Walp. Ann.* iii. p. 842.

HONGKONG (*Champion*! *Wright*! *Ford*!). Mus. Brit.; Herb. Kew.

1. **Altingia chinensis**, *Benth. et Hook. f. Gen. Plant.* i. p. 669; *Hance in Journ. Linn. Soc.* xiii. p. 103.

Liquidambar chinensis, *Champ. in Hook. Kew Journ. Bot.* iv. p. 164; *Walp. Ann.* v. p. 86; *Benth. Fl. Hongk.* p. 132.

HONGKONG (*Wilford*! *Wright*! *Champion*!). Mus. Brit.; Herb. Kew.

1. **Liquidambar formosana**, *Hance in Ann. Sc. Nat.* 5me série, v. p. 215; *Journ. Bot.* 1870, p. 274; *Oliv. in Hook. Ic. Pl.* xi. p. 14, t. 1020.

Liquidambar acerifolia, *Maxim. in Mél. Biol.* vi. p. 21, et viii. p. 419.

Liquidambar Maximowiczii, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 200; *Franchet, Pl. David.* p. 357.

Liquidambar, sp., *Hemsl. in Journ. Bot.* 1876, p. 207.

KIANGSI: Kiukiang (*Forbes*! *Shearer*!); FOKIEN: Amoy interior (*Swinhoe*!); FORMOSA: Taiwan (*Oldham*!), Tamsui (*Watters*!); HUPEH: Nanto and Ichang (*A. Henry*!); KWANGTUNG: hills near Canton, &c. (*Sampson*, hb. *Hance*, 11209 in part.!). Mus. Brit.; Herb. Kew.

Japan.

The Feng tree; timber used for making tea-chests.

2. **Liquidambar formosana**, *Hance*, var. vel species diversa, foliorum lobis ovato-oblongis acutis, nec caudato-acuminatis.

Kwangtung: near the temple, towards the summit of the Pakwan mountains (*Hance*, 11209 !). Mus. Brit.; Herb. Kew.

This may be an extreme form of *L. formosana*, as named by Hance, but it is so strikingly different in foliage from all the other numerous specimens which we have seen, that we prefer keeping it apart at present.

3. **Liquidambar**, sp.; foliis longe petiolatis trilobatis, lobis integris, lobo intermedio interdum trilobulato.

Hupeh: Hankow (*Alabaster* !). Herb. Kew.

The timber of this is also used for making tea-chests. Consul Alabaster sent detached leaves and fruits in 1884, and we have little doubt that it will prove a distinct species.

## 52. HALORAGEÆ.

1. **Haloragis micrantha**, *R. Br. in Flinders's Voy.* ii. p. 550, ex *Benth. Fl. Austr.* ii. p. 482; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 430; *Hance in Journ. Bot.* 1870, p. 276.

Gonocarpus micranthus, *Thunb. Fl. Jap.* p. 69, t. 15; *DC. Prodr.* iii. p. 66.

Fokien: Amoy (*Sampson* !); Kwangtung: hills near Canton (*Hance*, 10975 !). Mus. Brit.; Herb. Kew.

Eastern India to Japan, Malaya, Australia, and New Zealand.

2. **Haloragis tetragyna**, *Hook. f. Fl. N. Zeal.* i. p. 62; *Benth. Fl. Austr.* ii. p. 484; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 430.

Haloragis scabra, *Benth. Fl. Hongk.* p. 139.

Goniocarpus scaber, *Kon. et Sims, Ann. Bot.* i. p. 547, t. 12; *DC. Prodr.* iii. p. 66.

China: without locality (*Millett* !); Hongkong (*Champion* ! *Wilford* !). Mus. Brit.; Herb. Kew.

Eastern India and Malaya to Australia and New Zealand.

1. **Hippuris vulgaris**, *Linn. Sp. Pl.* ed. 1, p. 4; *DC. Prodr.* iii. p. 71; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 432.

Chihli: Peking (ex *Maximowicz*).

Very widely spread in the northern hemisphere, and occurring in Magellan Straits.

1. **Myriophyllum spicatum,** *Linn. Sp. Pl.* ed. 1, p. 992; *DC. Prodr.* iii. p. 68; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471; *Debeaux, Fl. Shangh.* p. 31; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 433.

CHIHLI: Peking (*Bretschneider*!); KIANGSU: Shanghai (*Maingay*!), Fengwangshan (*Forbes*!). Herb. Kew.

Generally diffused in the cool and temperate regions of the northern hemisphere.

2. **Myriophyllum verticillatum,** *Linn. Sp. Pl.* ed. 1, p. 992; *DC. Prodr.* iii. p. 68; *Maxim. in Fl. Pek. in Prim. Fl. Amur.* p. 471; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 433.

CHIHLI: Peking (ex *Maximowicz*).

All round the northern hemisphere.

1. **Callitriche verna,** *Linn. Sp. Pl.* ed. 2, p. 6; *DC. Prodr.* iv. p. 70; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 434; *Hegelm. Monogr.* p. 55, t. 3. fig. 10; *Hance in Journ. Bot.* 1870, p. 276, et 1878, p. 227.

KWANGTUNG: Whampoa (*Hance*, 4321!), Canton (*Sampson*!). Mus. Brit.; Herb. Kew.

All round the northern hemisphere, and, on the authority of Hegelmeier, also in South America.

## 53. RHIZOPHOREÆ.

1. **Kandelia Rheedii,** *Wight et Arn. Prodr. Fl. Ind. Or.* i. p. 310; *Hensl. in Hook. f. Fl. Brit. Ind.* ii. p. 437; *Benth. Fl. Hongk.* p. 110; *Wight, Ill. Pl. Ind. Or.* t. 89; *Hook. Ic. Pl.* t. 362.

FORMOSA: Tamsui (*Oldham*, 116!); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

Sea-coasts of tropical Asia.

1. **Bruguiera cylindrica,** *Blume in Mus. Bot. Lugd.-Bat.* i. p. 137; *Hance in Journ. Bot.* 1879, p. 10.

HAINAN: Hoihau (*Bullock*, hb. *Hance*!). Mus. Brit.

Shores of tropical Asia.

The species of this genus are ill-defined, and this may be the same as that named *gymnorrhiza* by Engler.

2. **Bruguiera gymnorrhiza,** *Lam. Ill.* t. 397; *Hensl. in Hook. f. Fl. Brit. Ind.* ii. p. 437; *Engler, Bot. Jahrb.* vi. p. 63.

Bruguiera Rheedii, *Miq. Fl. Ind. Bat.* i. p. 587; *Wight, Ic. Pl. Ind. Or.* t. 239.

LUCHU ARCHIPELAGO (*Döderlein* ex *Engler*).

Tropical Asia, Africa, Australia, and Polynesia in maritime districts.

1. **Carallia integerrima,** *DC. Prodr.* iii. p. 33; *Benth. Fl. Hongk.* p. 111; *Hensl. in Hook. f. Fl. Brit. Ind.* ii. p. 439.

Carallia zeylanica, *Arn.*; *Wight, Ill. Pl. Ind. Or.* t. 90.

Carallia sinensis, *Arn. in Ann. Nat. Hist.* i. p. 371; *Seem. Bot. Voy. 'Herald,'* p. 376.

HONGKONG (*Champion*! *Wright*! *Ford*!). Mus. Brit.; Herb. Kew.

Tropical Asia and Australia.

## 54. COMBRETACEÆ.

1. **Combretum Alfredi,** *Hance in Journ. Bot.* 1871, p. 131.

KWANGTUNG: West river, Canton (*Hance*, 16694!). Mus. Brit.; Herb. Kew.

2. **Combretum pilosum,** *Roxb. Fl. Ind.* ii. p. 231; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 453.

HAINAN (*B. C. Henry*!). Herb. Kew.

Eastern India, from Silhet to Mergui.

1. **Quisqualis indica,** *Linn. Sp. Pl.* ed. 2, p. 556; *DC. Prodr.* iii. p. 23; *Lour. Fl. Cochinch.* p. 274; *Hance in Journ. Bot.* 1879, p. 10.

Quisqualis sinensis, *Lindl. Bot. Reg.* 1844, t. 15.

Quisqualis grandiflora, *Miq. in Journ. de Bot. Néerl.* i. p. 119.

SOUTH CHINA: without locality (*Millett*!); FOKIEN: Amoy, interior (*Swinhoe*!); YUNNAN (*Anderson*!); KWANGTUNG: banks of the West river (*Sampson*!), Macao (*Gaudichaud*!). Mus. Brit.; Herb. Kew

Widely dispersed in tropical Asia, though often only cultivated or an escape from cultivation.

1. **Illigera rhodantha,** *Hance in Journ. Bot.* 1883, p. 321.

KWANGTUNG: Lienchau river (*B. C. Henry*, hb. *Hance*, 22072!). Mus. Brit.

[*Cacoucia chinensis,* Adr. Juss. (DC. Prodr. iii. p. 22), founded on

a drawing of a fruit, perhaps of *Quisqualis indica* (Petiver, Opera, Hist. Nat. i. p. 8, t. 37. f. 8), is recorded from Cochin China.]

## 55. MYRTACEÆ: Leptospermeæ.

1. **Bæckea frutescens**, *Linn. Sp. Pl.* ed. 1, p. 358; *DC. Prodr.* iii. p. 229; *Osbeck, Itin.* p. 231, t. 1, *English ed.* p. 373; *Seem. Bot. Voy. 'Herald,'* p. 378; *Benth. Fl. Hongk.* p. 118; *Duthie in Hook. f. Fl. Brit. Ind.* ii. p. 463; *Bot. Mag.* t. 2802.

Bæckea chinensis, *Gærtn. Fruct.* i. p. 157, t. 31.

South China: without locality (*Millett*! *Fortune*, 74!); Kwangtung: Macao (*Vachell*! *Tate*!), Lantao (*Cantor*!); Hongkong (*Wright*! *Wilford*! *Champion*! *Hance*! *Urquhart*!); Hainan (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Malayan peninsula and archipelago.

Interesting as a northern outlier of an essentially Australian genus.

A few other members of the *Leptospermeæ* reach the Malayan peninsula. Among them is *Melaleuca Leucadendron*, which is common throughout the Archipelago and in North-eastern Australia; and in the Kew Herbarium there is a specimen labelled "Hongkong, *Hinds*," in the handwriting of the late Mr. Bentham, who, however, does not mention it in his 'Flora Hongkongensis.' Probably it was cultivated, as there are no specimens of it in subsequent collections.

## 55. MYRTACEÆ: Myrteæ.

[*Psidium Guyava*, Linn. (including *P. pomiferum* and *P. pyriferum*), a native of America, is naturalized in South China, and, indeed, throughout tropical Asia: see Fl. Hongk. p. 120. *Psidium Cattleianum*, Sabine (Trans. Hort. Soc. Lond. iv. p. 316, t. 11; Bot. Reg. t. 622), is recorded as of Chinese origin, but it is not indigenous there. *Psidium pumilum*, Vahl, is another variety or species, cultivated or naturalized in China. *Psidium caninum*, Lour. (Fl. Cochinch. p. 310), is an obscure plant.]

1. **Rhodomyrtus tomentosa**, *Hassk. in Flora*, 1842, *Beibl.* ii. p. 35; *Wight, Spicil. Neilgh.* i. p. 60, t. 71; *Benth. Fl. Hongk.* p. 121; *Duthie in Hook. f. Fl. Brit. Ind.* ii. p. 469.

Myrtus tomentosa, *Ait. Hort. Kew.* ed. 1, ii. p. 159; *Bot. Mag.* t. 250; *DC. Prodr.* iii. p. 240.

Myrtus canescens, *Lour. Fl. Cochinch.* p. 311, ex descript.

FOKIEN: Amoy interior (*Swinhoe*!); KWANGTUNG: Macao (*Millett*! *Tate*! *Vachell*!), Pakhoi (*Playfair*!); HONGKONG (*Champion*! *Hinds*! *Urquhart*!); HAINAN: Hoihow (*Hancock*!), without locality (*Swinhoe*!). Mus. Brit.; Herb. Kew.

India, Malaya, Japan, and the Philippine Islands.

1. **Eugenia acuminatissima**, *Kurz in Journ. As. Soc. Beng.* xlvi. 1. p. 67, *et Forest, Fl. Burm.* i. p. 487; *Duthie in Hook. f. Fl. Brit. Ind.* ii. p. 483; *Hance in Journ. Bot.* 1885, p. 483.

Myrtus acuminatissima, *Blume, Bijdr.* p. 1088.

Jambosa acuminatissima, *Hassk. in Flora*, 1849, p. 592.

HONGKONG (*Ford*!). Mus. Brit.; Herb. Kew.

Malay peninsula and archipelago.

2. **Eugenia Bullockii**, *Hance in Journ. Bot.* 1878, p. 227.

HAINAN: around Hoihau (*Bullock*, hb. *Hance*, 20289!). Mus. Brit.

3. **Eugenia Championi**, *Hemsl.*

Acmena Championi, *Benth. in Hook. Kew Journ. Bot.* iv. p. 118, et *Fl. Hongk.* p. 119; *Walp. Ann.* iv. p. 840.

HONGKONG (*Champion*! *Irwin*!). Mus. Brit.; Herb. Kew.

4. **Eugenia fluviatilis**, *Hemsl.*, n. sp.

*Frutex* 6–8-pedalis (*Henry*), oleoides, undique glaberrimus, ramulis floriferis elongatis rectis graciliusculis. *Folia* opposita, breviter petiolata, subcoriacea, lineari-oblonga, interdum supra medium latiora, 1½-3 poll. longa, 4-6 lineas lata, basi attenuata, apice obtusissima vel rotundata, supra minute punctata, venis immersis obscuris, costa impressa, subtus venis paucis lateralibus primariis leviter elevatis. *Flores* parvi, in cymas axillares et terminales pedunculatas 2-3-chotomas foliis dimidio breviores dispositi; calyx elongato-turbinatus, dentibus 4 brevissimis rotundatis; petala plus minusve connata citoque decidua; ovarium 2-loculare, multiovulatum, stylo unico elongato persistente. *Fructus* non visus.

HAINAN: in water-courses (*B. C. Henry*, 55!). Herb. Kew.

Very distinct from all other Chinese species at present known, though remotely resembling *E. myrsinifolia* in foliage.

5. **Eugenia gracilenta**, *Hance in Journ. Bot.* 1885, p. 7.

KWANGTUNG: Saichushan on the North river (*B. C. Henry*, hb. *Hance*, 22268!). Mus. Brit.

6. **Eugenia Henryi**, *Hance in Journ. Bot.* 1885, p. 7.

HAINAN: near Woshi (*B. C. Henry*, hb. *Hance*, 22263!). Mus. Brit.

7. **Eugenia Jambos**, *Linn. Sp. Pl.* ed. 1, p. 470; *Duthie in Hook. f. Fl. Brit. Ind.* ii. p. 474.

Jambosa vulgaris, *DC. Prodr.* iii. p. 286; *Hook. et Arn. Bot. Beech. Voy.* p. 188; *Benth. Fl. Hongk.* p. 120; *Wight, Ic. Pl. Ind. Or.* t. 435; *Bot. Mag.* t. 3356.

FORMOSA (*Oldham*, 114!); YUNNAN (*Anderson*!); KWANGTUNG: Macao (*Gaudichaud*!); HONGKONG (*Champion*!). Herb. Kew.

India to Australia, but commonly cultivated and naturalized.

8. **Eugenia malaccensis**, *Linn. Sp. Pl.* ed. 1, p. 470; *Lour. Fl. Cochinch.* p. 188; *Duthie in Hook. f. Fl. Brit. Ind.* ii. p. 471.

Jambosa malaccensis, *DC. Prodr.* iii. p. 286; *Hook. et Arn. Bot. Beech. Voy.* p. 188; *Bot. Mag.* t. 4408.

SOUTH CHINA (*Beechey*!), probably cultivated. Herb. Kew.

A native of Malaya, of which there are many varieties cultivated in tropical countries.

9. **Eugenia Millettiana**, *Hemsl.*

Syzygium odoratum, *Hook. et Arn. Bot. Beech. Voy.* p. 187, an *DC. Prodr.* iii. p. 260?; *Benth. Fl. Hongk.* p. 119.

Opa odorata, *Lour. Fl. Cochinch.* p. 309.

KWANGTUNG: without locality (*Millett*! *Vachell*!), Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wright*!). Mus. Brit.; Herb. Kew.

10. **Eugenia minutiflora**, *Hance in Journ. Bot.* 1871, p. 5.

SOUTH CHINA: without locality (*Millett*!); KWANGTUNG: near Shuitung (*Sampson & Hance*, 13754!); HONGKONG (*Ford*!). Mus. Brit.; Herb. Kew.

11. **Eugenia myrsinifolia**, *Hance in Journ. Bot.* 1885, p. 8.

HAINAN (*B. C. Henry*, hb. *Hance*, 22277!). Mus. Brit.

12. **Eugenia operculata**, *Roxb. Fl. Ind.* ii. p. 486; *Duthie in Hook. f. Fl. Brit. Ind.* ii. p. 498; *Wight, Ic. Pl. Ind. Or.* t. 552.

Syzygium nervosum, *DC. Prodr.* iii. p. 260; *Benth. Fl. Hongk.* p. 119.

Calyptranthes mangiferifolia, *Hance in Walp. Ann.* ii. p. 629.

KWANGTUNG (*Millett*! *Livingstone*!); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

Widely spread in India and Malaya.

13. **Eugenia sinensis**, *Hemsl.*

Syzygium buxifolium, *Hook. et Arn. Bot. Beech. Voy.* p. 187; *Walp. Ann.* ii. p. 180; *Benth. Fl. Hongk.* p. 118.

Syllysium buxifolium, *Meyen et Schauer in Nov. Act. Nat. Cur.* xix. Suppl. i. p. 334.

Eugenia Grijsii, *Hance in Journ. Bot.* 1871, p. 5, et 1879, p. 10.

Eugenia pyxophylla, *Hance in Journ. Bot.* 1871, p. 6.

Eugenia microphylla, *Abel, Narr. Journ. in China*, pp. 181 et 364; *F. B. Forbes in Journ. Bot.* 1884, p. 124?

Eugenia, sp., *S. Moore in Journ. Bot.* 1875, p. 227.

SOUTH CHINA: without locality (*Beechey*! *Seemann*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Fortune*, 93!), Pagoda Island, south of Foochow (*Carles*!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Swatow (*Perry*!); HONGKONG (*Champion*! *Wright*! *Urquhart*! *Wilford*!). Mus. Brit.; Herb. Kew.

This species, as understood by Hooker and Arnott, is an exceedingly variable one, but it is possible that we have referred some forms here that should rank as independent species, though we have failed to find characteristics by which to distinguish them. Some of the original specimens of *Syzygium buxifolium* have the flowers in terminal cymes, while in others they are solitary and axillary and much smaller. The leaves also are very variable in size and shape; and they are opposite and ternately verticillate on the same branch. We have not succeeded in finding the original of Abel's *Eugenia microphylla*.

14. **Eugenia tephrodes**, *Hance in Journ. Bot.* 1885, p. 7.

HAINAN: near Kachik (*B. C. Henry*, hb. *Hance*, 22250!). Mus. Brit.

There are Chinese specimens of two species of *Eugenia*, collected by Macartney, in the British Museum, which we have not identified.

## 56. MELASTOMACEÆ.

1. **Osbeckia chinensis**, *Linn. Sp. Pl.* ed. 1, p. 345; *DC. Prodr.* iii. p. 141; *Lour. Fl. Cochinch.* p. 228; *Benth. Fl. Hongk.* p. 115; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 515; *Franchet, Pl. David.* p. 132; *Bot. Reg.* t. 542; *Bot. Mag.* t. 4026.

CHINA: without locality (*Millett! Fortune*, 44!); KIANGSI: Kiukiang (*Forbes*!); FORMOSA (*Wilford*!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Champion! Wright*!). Mus. Brit.; Herb. Kew.

Western Himalayas to Japan, the Malay archipelago and North Australia.

2. **Osbeckia crinita**, *Benth.*; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 517.

Osbeckia stellata β, *DC. Prodr.* iii. p. 142.

Osbeckia stellata, *Naud. in Ann. Sc. Nat.* 3me série, xiv. p. 72; *Hance in Journ. Bot.* 1878, p. 107.

KWANGTUNG: Lofaushan (*Ford*!), North river (*Sampson*, hb. *Hance*!). Mus. Brit.; Herb. Kew.

Eastern India and Malaya.

The Chinese plant is this, rather than *O. stellata*, if they are really distinct species. Clarke, *loc. cit.*, accepts Hance's determination, but almost every botanist who has dealt with the forms has taken a different view of the limits of the species, and the two names have been interchanged.

1. **Otanthera Fordii**, *Hance in Journ. Bot.* 1881, p. 47.

HONGKONG (*Ford*!). Mus. Brit.; Herb. Kew.

1. **Melastoma candidum**, *Don in Mem. Wern. Soc.* iv. p. 288; *DC. Prodr.* iii. p. 145; *Benth. in Hook. Kew Journ. Bot.* iv. p. 116; *Triana in Trans. Linn. Soc.* xxviii. p. 60.

Melastoma macrocarpum, *Don in Mem. Wern. Soc.* iv. p. 289; *Benth. Fl. Hongk.* p. 113.

Melastoma malabathricum, *Bot. Mag.* t. 529, excl. syn. fide *Don, loc. cit.*, et *Bot. Reg.* sub t. 672; *Hook. et Arn. Bot. Beech. Voy.* p. 186, non *Linn.*

Melastoma calycinum, *Benth. in Hook. Lond. Journ. Bot.* i. p. 485; *Walp. Rep.* ii. p. 133.

Melastoma Nobotan, *Blume in Mus. Bot. Lugd.-Bat.* i. p. 54?

CHINA: without locality (*Fortune*, 64!); FORMOSA: Tamsui (*Hancock! Oldham*, 117!), north-west (*Perry*!); KWANGTUNG: Lofaushan (*Ford*!), Pakhoi (*Playfair*!), Macao, &c. (*Gaudichaud! Vachell*!); HONGKONG (*Urquhart! Champion! Hinds! Wright*!); HAINAN (*Swinhoe*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

This has been confused with the common Indian and North-Australian *M. malabathricum*, from which, however, it is sufficiently

distinct. Triana doubtingly refers a figure in the 'Botanical Register' (t. 672) to this species; but Clarke (in Hook. f. Fl. Brit. Ind. ii. p. 523) unhesitatingly cites it under *M. malabathricum*, Linn., and Don's account of the two species supports this view.

2. **Melastoma repens,** *Desr. in Lam. Encycl.* iv. p. 54; *Naud. in Ann. Sc. Nat.* 3me série, xiii. p. 274, t. 5. fig. 1; *Benth. Fl. Hongk.* p. 113; *Hance in Journ. Bot.* 1869, p. 296, et *in Trans. Linn. Soc.* xxviii. p. 58.

Osbeckia repens, *DC. Prodr.* iii. p. 142.

Asterostoma repens, *Blume in Mus. Bot. Lugd.-Bat.* i. p. 50.

Rhexia heteranthera, *Bonpl. in Humb. et Bonpl. Monogr. Melast.*, Rhexia, t. 33.

Osbeckia heteranthera, *Spreng. Syst. Veg.* ii. p. 312.

Melastoma dodecandra, *Lour. Fl. Cochinch.* p. 274?

CHINA: without locality (*Fortune*!); SZECHUEN (*Mesny*!); KWANGTUNG: Lofaushan (*Ford*!), Swatow (*Perry*!), without locality (*Wenyon*!); HONGKONG (*Champion*! *Wright*! *Seemann*! *Urquhart*! *Hance*!). Mus. Brit.; Herb. Kew.

3. **Melastoma sanguineum,** *Sims in Bot. Mag.* t. 2241; *Don in Mem. Wern. Soc.* iv. p. 289; *DC. Prodr.* iii. p. 145; *Triana in Trans. Linn. Soc.* xxviii. p. 60; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 524.

Melastoma decemfidum, *Roxb. Cat. Hort. Beng.* p. 90; *Jack in Trans. Linn. Soc.* xiv. p. 6; *Benth. Fl. Hongk.* p. 114.

SOUTH CHINA: without locality (*Millett*! *Fortune*, 83!); KWANGTUNG: Macao (*Gaudichaud*! *Calléry*!); HONGKONG (*Champion*! *Wright*! *Urquhart*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Malaya.

In the Kew Herbarium is a specimen bearing one flower of what may be an undescribed species of *Melastoma*. It was collected at Foochow by Mr. Carles.

1. **Barthea chinensis,** *Hook. f. in Benth. et Hook. f. Gen. Plant.* i. p. 751.

Dissochœta Barthei, *Hance in Benth. Fl. Hongk.* p. 115, et *in Journ. Linn. Soc.* xiii. p. 103.

CHINA: without locality (*Fortune*, 167!); HONGKONG (*Hance*! *Barthe*! *Wilford*! *Harland*!). Mus. Brit.; Herb. Kew.

1. **Allomorphia pauciflora**, *Benth. in Hook. Lond. Journ. Bot.* i. p. 485; *Walp. Rep.* ii. p. 918; *Triana in Trans. Linn. Soc.* xxviii. p. 74.

Oxyspora pauciflora, *Benth. Fl. Hongk.* p. 116.

Blastus Hindsii, *Hance in Journ. Linn. Soc.* xiii. p. 103.

KWANGTUNG: hills along the North river (*Sampson & Hance*, 11352!); HONGKONG (*Hinds*!). Mus. Brit.; Herb. Kew.

1. **Blastus cochinchinensis**, *Lour. Fl. Cochinch.* p. 527; *Seem. Journ. Bot.* 1863, p. 281; *Hance in Journ. Linn. Soc.* xiii. p. 103; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 528.

Anplectrum parviflorum, *Benth. Fl. Hongk.* p. 116.

Blastus parviflorus, *Triana in Trans. Linn. Soc.* xxviii. p. 74; *Engler, Jahrb.* vi. p. 62.

FORMOSA (*Wilford*, 530! *Oldham*, 119!); KWANGTUNG: along the West river (*Hance*, 13762!), Lofaushan (*Ford*!); HONGKONG (*Wright*!); LUCHU ARCHIPELAGO (*Döderlein* ex *Engler*). Mus. Brit.; Herb. Kew.

Eastern India.

1. **Bredia Oldhami**, *Hook. f. in Hook. Ic. Pl.* xi. p. 68, t. 1085.

FORMOSA: Tamsui (*Oldham*, 118!), Kelung (*Ford*!). Mus. Brit.; Herb. Kew.

1. **Sonerila Fordii**, *Oliv. in Hook. Ic. Pl.* xv. p. 45, t. 1457.

KWANGTUNG: Lofaushan, in swampy ground (*Ford*!). Mus. Brit.; Herb. Kew.

2. **Sonerila tenera**, *R. Br. in Wall. Cat.* 4098, et *in Benn. Pl. Jav. Rar.* p. 216; *Royle, Ill. Him. Pl.* p. 215, t. 45; *Hance in Journ. Bot.* 1878, p. 107.

KWANGTUNG: North river (*Sampson & Hance*, 13356!); HONGKONG (*Ford*!). Mus. Brit.; Herb. Kew.

Eastern India and Burma.

3. **Sonerila**, sp. aff. *S. eleganti*, exemplaria fructifera tantum.

KWANGTUNG: mountains, West river (*Ford*, 5!). Mus. Brit.; Herb. Kew.

4. **Sonerila**, sp.?; scaposa, foliis radicalibus longe petiolatis cordato-orbicularibus.

KWANGTUNG: mountain above Ookaisa, in a damp ravine at 2300 feet (*Tate*!). Herb. Kew.

5. **Sonerila**, sp. ? ; foliis cordato-ovatis subtus atro-rubris.

KWANGTUNG : Lofaushan at 1000 feet (*Ford*, 150 !). Herb. Kew.

Three very distinct Melastomaceæ, but in the absence of flowers the genus cannot be determined with certainty.

1. **Sarcopyramis nepalensis**, *Wall. Tent. Fl. Nep.* t. 23 ; *Benn. Pl. Jav. Rar.* p. 214 ; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 541.

Sarcopyramis lanceolata, *Wall.* ; *Kurz in Journ. Bot.* 1873, p. 193 ; *Hance in Journ. Bot.* 1878, p. 107.

YUNNAN (*Anderson* ex *Kurz*) ; KWANGTUNG : West river (*Sampson*, hb. *Hance* !). Mus. Brit.

Eastern India and Malaya.

1. **Memecylon ligustrifolium**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 117 ; *Benth. Fl. Hongk.* iv. p. 117 ; *Triana in Trans. Linn. Soc.* xxviii. p. 156.

Memecylon scutellatum, *Hook. et Arn. Bot. Beech. Voy.* p. 186 ; *Seem. Bot. Voy. 'Herald,'* p. 377, non *Naud.*

SOUTH CHINA : without locality (*Beechey* !) ; KWANGTUNG Macao, &c. (*Vachell* !) ; HONGKONG (*Champion* ! *Hance* ! *Seemann* !). Mus. Brit. ; Herb. Kew.

2. **Memecylon nigrescens**, *Hook. et Arn. Bot. Beech. Voy* p. 186 ; *Walp. Rep.* ii. p. 149 ; *Seem. Bot. Voy. 'Herald,'* p. 378, sub Acmena Championi ; *Triana in Trans. Linn. Soc.* xxviii. p. 159.

KWANGTUNG : Macao (*Beechey* !). Herb. Kew.

From Hooker and Arnott's description, Triana, who failed to find the specimen, as it had been removed to the genus *Eugenia*, suspected that this was not a *Memecylon* ; but after examining the flowers we have no hesitation in restoring it to this genus.

## 57. LYTHRACEÆ.

1. **Ammannia baccifera**, *Linn. Sp. Pl.* ed. 1, p. 120 ; *Koehne, in Engler's Jahrb.* i. p. 258 ; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 569 ; *Hance in Journ. Bot.* 1878, p. 227 ; *Franchet, Pl. David.* p. 133.

Ammannia vesicatoria, *Roxb. Fl. Ind.* i. p. 426; *DC. Prodr.* iii. p. 78; *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* i. p. 305.

Ammannia indica, *Lam. Ill.* i. p. 311.

Ammannia verticillata, *Lam. Encycl.* i. p. 131, partim ?

SHANTUNG: Chefoo (hb. *Forbes* !); KIANGSI: Kiukiang (*David*, 757, ex *Franchet*); HUPEH: Ichang (*A. Henry* !); KWANGTUNG: Canton (*Hance*, 10321! *Sampson* !), Pakhoi (*Playfair* !). Mus. Brit.; Herb. Kew.

Very widely spread in tropical Asia, Africa, and Australia, and extending into some subtropical and temperate regions, as China and Japan.

2. **Ammannia octandra**, *Linn. f. Suppl.* p. 127; *DC. Prodr.* iii. p. 80; *Hance in Journ. Bot.* 1878, p. 227.

FOKIEN: Amoy (*Hance* !). Mus. Brit.

India and Malaya.

3. **Ammannia pentandra**, *Roxb. Fl. Ind.* i. p. 427; *DC. Prodr.* iii. p. 79; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 568 (excl. var. fimbriata); *Hance in Journ. Bot.* 1878, p. 227.

Rotala densiflora, *Koehne in Engler's Jahrb.* i. p. 164.

KWANGTUNG: Canton (*Sampson*, hb. *Hance* 13113 !). Mus. Brit.; Herb. Kew.

India and Malaya.

4. **Ammannia peploides**, *Spreng. Syst. Veg.* i. p. 444; *Boiss. Fl. Orient.* ii. p. 742; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 566.

Ammannia repens, *Rottl.*; *DC. Prodr.* iii. p. 80; *Hance in Journ. Bot.* 1878, p. 227; *Wight, Ic. Pl. Ind. Or.* t. 257.

Ameletia indica, *DC. Prodr.* iii. p. 76.

Peplis indica, *Willd. Sp. Pl.* ii. p. 244.

Rotala indica, *Koehne in Engler's Jahrb.* i. p. 172.

KWANGTUNG: around Canton (*Hance*, 10322! *Sampson* !). Mus. Brit.; Herb. Kew.

From Persia eastward to Japan, and southward in Malaya.

5. **Ammannia rotundifolia**, *Ham. in Don Prodr. Fl. Nep.* p. 220; *Roxb. Fl. Ind.* i. p. 425; *DC. Prodr.* iii. p. 79; *Wight, Ic. Pl. Ind. Or.* t. 258; *Benth. Fl. Hongk.* p. 111.

Ammannia subspicata, *Benth. in Hook. Lond. Journ. Bot.* i. p. 484, et *in Hook. Journ. Bot.* iv. p. 81 (Ameletia).

Rotala rotundifolia, *Koehne in Engler's Jahrb.* i. p. 175.

CHINA: without locality (*Fortune*, 181!); FORMOSA: Tamsui (*Oldham*, 123!), north-west (*Swinhoe*!); HUPEH: Ichang (*A. Henry*!); YUNNAN (*Anderson*!); KWANGTUNG: Pakhoi (*Playfair*!), Swatow (*Perry*!); HONGKONG (*Champion*! *Wright*! *Wilford*! *Urquhart*! *Tate*! *Hinds*!). Mus. Brit.; Herb. Kew.

Tropical and subtropical Asia to Japan.

6. **Ammannia senegalensis**, *Lam. Ill.* i. p. 312, t. 77. f. 2; *DC. Prodr.* iii. p. 77; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 570; *Koehne in Engler's Jahrb.* i. p. 255; *Hance in Journ. Bot.* 1885, p. 323.

Ammannia auriculata, *Willd. Hort. Berol.* t. 7.

HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Pakwan mountain (*Sampson*, hb. *Hance*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, Australia, and America.

We have followed Clarke in the synonymy of this species, as we have not critically examined the materials.

1. **Woodfordia floribunda**, *Salisb. Parad. Lond.* t. 42; *Boiss. Fl. Or.* ii. p. 737; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 572; *Hance in Journ. Bot.* 1883, p. 321.

Grislea tomentosa, *Roxb. Corom. Pl.* t. 31; *Bot. Mag.* t. 1906; *DC. Prodr.* iii. p. 92.

Woodfordia fruticosa, *Kurz in Journ. As. Soc. Beng.* xl. 2. p. 56; *Koehne in Engler's Jahrb.* i. p. 333.

Lythrum fruticosum, *Linn. Sp. Pl.* ed. 2, p. 641.

KWANGTUNG: Shiuhing Pass, West river (*Ford*!). Mus. Brit.; Herb. Kew.

Tropical Africa and Madagascar, and Baluchistan to China.

Koehne regards the African *W. uniflora*, Rich., as specifically distinct, though several English botanists have united it with the present.

1. **Lythrum Salicaria**, *Linn. Sp. Pl.* ed. 1, p. 446; *DC. Prodr.* iii. p. 82; *Koehne in Engler's Jahrb.* i. p. 326; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471; *Hance in Journ. Bot.* 1882, p. 261; *Franchet, Pl. David.* p. 133, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 219.

CHIHLI: Peking (*Bretschneider*!); SHANTUNG: Chefoo (*Stuhlmann*!); KIANGSU: Chinkiang (*Bullock*, hb. *Hance*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

All round the northern hemisphere, and in south-eastern Australia and Tasmania. Koehne, *loc. cit.*, records it with some doubt from Peru.

2. **Lythrum virgatum,** *Linn. Sp. Pl.* ed. 1, p. 447; *DC. Prodr.* iii. p. 83; *Koehne in Engler's Jahrb.* i. p. 331; *Hemsl. in Journ. Bot.* 1876, p. 207; *Debeaux, Fl. Tchef.* p. 62; *Hance in Journ. Bot.* 1882, p. 261.

CHIHLI: Peking (*Bushell*!); SHINGKING: Peiling, &c. (*Webster*!), Kaichow to Kiuchow (*Ross*!), Talienhwan (*Birnie*!); COREA: Chemulpo (*Carles*!); COREAN ARCHIPELAGO: Hooper Island (*Oldham*, 276!). Mus. Brit.; Herb. Kew.

Eastern Europe and Asia Minor to Japan.

1. **Pemphis acidula,** *Forst. Char. Gen. Pl.* p. 67, t. 34; *DC. Prodr.* iii. p. 89; *Hemsl. in Bot. Voy. 'Challenger,'* i. 3, p. 153; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 573; *Koehne in Engler's Jahrb.* ii. p. 133.

LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Sea-coast of East Africa, Mascarene Islands, South India, Malay Archipelago, North-east Australia, and Polynesia, including many of the most remote coral islands.

1. **Lawsonia inermis,** *Linn. Sp. Pl.* ed. 1, p. 349; *Koehne in Engler's Jahrb.* iv. p. 36.

Lawsonia spinosa, *Linn. Sp. Pl.* ed. 1, p. 349.

Lawsonia alba, *Lam. Encycl.* iii. p. 106, et *Ill.* t. 296. f. 2; *Wight, Ill. Pl. Ind. Or.* t. 87; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 573.

CHINA: without locality (*Fortune*!). Mus. Brit.; Herb. Kew.

Now widely dispersed in the warmer parts of Asia and Africa, and very generally cultivated. It is believed to be indigenous in North Africa and Western Asia.

1. **Lagerstrœmia floribunda,** *Jack in Malay Misc.* i. p. 38, iii. p. 93; *Koehne in Engler's Jahrb.* iv. p. 34; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 577.

CHINA: without locality (*Fortune*, 105!). Herb. Kew.

Malay peninsula and archipelago.

2. **Lagerstrœmia Flos-Reginæ,** *Retz. Obs.* v. p. 25; *Kurz in*

*Journ. As. Soc. Beng.* xl. 2. p. 56; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 577.

Lagerstrœmia Reginæ, *Roxb. Corom. Pl.* t. 65; *DC. Prodr.* iii. p. 93; *Wight, Ic. Pl. Ind. Or.* t. 413.

Lagerstrœmia speciosa, *Pers. Syn. Pl.* ii. p. 72; non *DC. ex Koehne in Engler's Jahrb.* iv. p. 28.

Munchausia speciosa, *Linn. Mant.* p. 243.

Lagerstrœmia Munchausia, *Lam. Encycl.* iii. p. 375, et *Ill.* t. 473. f. 2.

China: without locality (*Millett*!). Mus. Brit.; Herb. Kew.

India and Malaya, and much cultivated.

3. **Lagerstrœmia indica,** *Linn. Sp. Pl.* ed. 2, p. 734; *Lour. Fl. Cochinch.* p. 340; *DC. Prodr.* iii. p. 93; *Benth. Fl. Hongk.* p. 113; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 575; *Koehne in Engler's Jahrb.* iv. p. 19; *Hance in Journ. Bot.* 1879, p. 11; *Franchet, Pl. David.* p. 133; *Debeaux, Fl. Shangh.* p. 31; *Bot. Mag.* t. 405; *Wight, Ill. Ind. Bot.* t. 86.

Fokien: Amoy (*Fortune*, 38 & 39!); Hupeh: Ichang, Patung, and Nanto (*A. Henry*!); Kwangtung: Macao (*Callery*), on the banks of the North river (*Sampson*, hb. *Hance*, 608!); Hongkong (*Tate*! *Urquhart*! *Champion*!). Mus. Brit.! Herb. Kew.

Malaya and North Australia, and cultivated throughout India, many parts of China and Japan.

4. **Lagerstrœmia subcostata,** *Koehne in Engler's Jahrb.* iv. p. 20, varr. α. hirtella et β. glabra.

Lagerstrœmia microcarpa, *Hance in Journ. Bot.* 1878, p. 107, non *Wight.*

Formosa: Tamsui (*Oldham*, 111, 111/1, 111/2, 119/2! *Hancock*!), Kelung (*Ford*!); Kwangtung: Saichushan (*Sampson*, hb. *Hance*, 15619!). Mus. Brit.; Herb. Kew.

1. **Punica Granatum,** *Linn. Sp. Pl.* ed. 1, p. 472; *Lour. Fl. Cochinch.* p. 313; *DC. Prodr.* iii. p. 3; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 581; *Wight, Ill. Ind. Bot.* t. 97; *Bot. Mag.* t. 634; *Debeaux, Fl. Tients.* p. 21, et *Fl. Shangh.* p. 30; *Bretschn. Study Chin. Bot. Works*, p. 16; *A. DC. Orig. Pl. Cult.* p. 189.

It appears to be beyond doubt that the Pomegranate was originally introduced into China; but it is supposed to be really

indigenous in Persia and some of the adjoining countries. Dr. I. B. Balfour discovered a curious form in Socotra, which he suggests may be the primitive state of the cultivated race*.

[*Dichotomanthes tristaniæcarpa*, Kurz (in Journ. Bot. 1873, p. 194, t. 133. f. 2), from Yunnan, regarded by him as an ally of *Lagerstrœmia*, appears to belong to the Rosaceæ, and so closely resembles some of the species referred to *Photinia*, *Stranvæsia*, and *Pourthiæa*, that we think it will prove a member of this group, but the material is insufficient. The two-seeded, one-celled, almost free carpel is not unknown in the Pomaceæ. Kurz found no petals, which we observe in the Kew specimen are obovate or rotundate and entire.]

## 58. ONAGRARIEÆ.

1. **Epilobium angustifolium**, *Linn. Sp. Pl.* ed. 1, p. 347; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471; *Hance in Journ. Bot.* 1883, p. 321; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 582; *Haussk. Monogr.* p. 37.

Epilobium spicatum, *Lam. Encycl.* ii. p. 373; *DC. Prodr.* iii. p. 40.

CHIHLI: Pohuashan (*Bretschneider*!). Herb. Kew.

Widely spread in temperate and arctic Europe, Asia, and North America.

2. **Epilobium hirsutum**, *Linn. Sp. Pl.* ed. 1, p. 347; *DC. Prodr.* iii. p. 42; *Franchet, Pl. David.* p. 134, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 219; *Haussk. Monogr.* p. 53.

CHIHLI: near Peking (*Bushell*! *Bretschneider*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); HUPEH: Nanto and mountains to the northward (*A. Henry*!). Mus. Brit.; Herb. Kew.

Europe, North Africa, and temperate Asia; and naturalized in North America.

The Nanto plant is a very small-flowered variety.

3. **Epilobium japonicum**, *Haussk. Monogr. Gatt. Epilob.* p. 209.

Epilobium affine, *Maxim. Ind. Sem. Hort. Petrop.* 1869, p. 16, *non Bong. ex Haussk.*

* See Proc. Roy. Soc. Edinb. xi. (1882), p. 512, and 'Botany of Socotra,' p. 96, t. 25.

KIANGSI: Kiukiang (hb. *Forbes*!); HUPEH: Patung district (*A. Henry*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Japan.

4. **Epilobium palustre,** *Linn. Sp. Pl.* ed. 1, p. 348; *DC. Prodr.* iii. p. 43, excl. synon. *Fl. Lapp.* ex *Haussk. Monogr.* p. 137; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471; *Franchet, Pl. David.* p. 134 (var. mandshuricum), et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 219.

CHIHLI: Peking (ex *Maximowicz*), Jehol (*David*, 1990, ex *Franchet*); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*).

Europe, Asia, and North America.

5. **Epilobium roseum,** *Schreb. Spicil. Lips.* p. 147; *DC. Prodr.* iii. p. 41; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 584.

CHIHLI: Peking (ex *Maximowicz*).

Hausskneeht (Monogr. p. 125) restricts this species to European forms, while in a broader sense it extends to Eastern Asia and North-west America. Dr. Henry collected a form (2445) in the Patung district of Hupeh which may be referable here.

6. **Epilobium tetragonum,** *Linn. Sp. Pl.* ed. 1, p. 348; *DC. Prodr.* iii. p. 43; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471; *Franchet, Pl. David.* p. 134 (var. Lamyi).

Epilobium propinquum, *Haussk. Monogr.* p. 213.

Epilobium decipiens, *Haussk.*, non *F. Schultz.*

CHIHLI: Peking (ex *Maximowicz*), Jehol (*David*, 1975, ex *Franchet*).

We have seen no Chinese specimens referable to this species, which, as generally understood, is very widely diffused in both north and south cold and temperate regions.

7. **Epilobium,** sp. nova?; erectum, strictum, multiramosum, glabrum, ramis virgatis gracillimis, foliis caulinis linearibus remote calloso-serratis 2-3 pollicaribus, capsulis fere filiformibus, seminibus minutis oblongis lævibus longissime comosis.

HUPEH: Patung district (*A. Henry*, 1043!). Herb. Kew.

This is apparently a distinct new species; but as the specimens

consist only of the upper part of the plant in fruit, it is advisable to await more complete material before naming it.

1. **Jussiæa repens**, *Linn. Mant.* p. 381; *DC. Prodr.* iii. p. 54; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 587; *Hance in Journ. Bot.* 1880, p. 261; *Hook. Bot. Misc.* iii. p. 300, t. 40.

Cubospermum palustre, *Lour. Fl. Cochinch.* p. 275.

FORMOSA (*Oldham*, 121!), Kelung (*Ford*!); KWANGTUNG: Macao, &c. (*Vachell*!), Whampoa (*Hance*!). Mus. Brit.; Herb. Kew.

Generally diffused in nearly all warm regions of the world.

2. **Jussiæa suffruticosa**, *Linn. Sp. Pl.* ed. 1, p. 388; *DC. Prodr.* iii. p. 58; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 587.

Jussiæa villosa, *Lam. Encycl.* iii. p. 331; *Benth. Fl. Hongk.* p. 109.
Epilobium tetragonum, *Lour. Fl. Cochinch.* p. 225, non *Linn.*
Jussiæa tetragona, *Spreng. Syst. Veg.* ii. p. 231.
Jussiæa fruticosa, *DC. Prodr.* iii. p. 57.
Jussiæa octofila, *DC. Prodr.* iii. p. 57.

SHANTUNG (*Maingay*!); FOKIEN: Amoy interior (*Swinhoe*!); FORMOSA: Tamsui (*Oldham*, 120! *Maries*!); YUNNAN: Poneshee (*Anderson*!); KWANGTUNG: Macao, &c. (*Vachell*! *Calléry*! *Fortune*!); HONGKONG (*Wright*! *Champion*; *Hinds*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Warm humid regions nearly all over the world.

1. **Ludwigia parviflora**, *Roxb. Fl. Ind.* i. p. 419; *DC. Prodr.* iii. p. 59; *Wight, Ill. Ind. Bot.* t. 101; *Benth. Fl. Hongk.* p. 109; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 588.

HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

Abyssinia and Persia eastward to India and Malaya, and southward to North Australia.

2. **Ludwigia prostrata**, *Roxb. Fl. Ind.* i. p. 420; *DC. Prodr.* iii. p. 59; *Wight, Ic. Pl. Ind. Or.* t. 762; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 588; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 220.

Ludwigia diffusa, *Buch. Ham. in Trans. Linn. Soc.* xiv. p. 301.

SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Tropical Africa, Mascarene Islands, and North-west India to Japan and the Malay Archipelago.

[Hance (in Journ. Bot. 1878, p. 107) records *Œnothera fruticosa* from Macao, where of course it would be a colonist; his specimens are certainly not that species, but rather *Œ. longiflora*, Jacq. (Hort. Vindob. t. 172), a native of South America, now established in many parts of the Old World. *Gaura chinensis*, Lour. (Fl. Cochinch. p. 225), is an obscure plant, the description not agreeing with the figure in Plukenet's 'Almagestum' cited by Loureiro.]

1. **Circæa alpina**, *Linn. Sp. Pl.* ed. 1, p. 9; *DC. Prodr.* iii. p. 63; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 589; *Asch. et Magn. in Bot. Zeit.* 1870, p. 748; *Wight, Ill. Ind. Bot.* t. 101*; *Franchet, Pl. David.* p. 134, et *in Bull. Soc. Bot. France*, xxxii. p. 8.

CHIHLI: Peking (*David*!); YUNNAN: mountains of Chetchotse, near Tali (*Delavay* ex *Franchet*). Mus. Brit.

Generally dispersed in north temperate regions.

2. **Circæa cordata**, *Royle, Ill. Him. Bot.* t. 43; *Franch. et Sav. Enum. Pl. Jap.* i. p. 170; *Asch. et Magn. in Bot. Zeit.* 1870, p. 784; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 589; *Franchet, Pl. David.* p. 135.

CHIHLI: Jehol (*David*, 1985!); HUPEH: Patung district (*A. Henry*!). Herb. Kew.

North India, Mandshuria, and Japan.

3. **Circæa lutetiana**, *Linn. Sp. Pl.* ed. 1, p. 9; *DC. Prodr.* iii. p. 63; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 589; *Franchet, Pl. David.* p. 135.

CHIHLI: Peking mountains (*David*, 438, ex *Franchet*); KIANGSI: Kiukiang (*Shearer*!). Herb. Kew.

Very widely spread in north temperate regions.

4. **Circæa mollis**, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* i. p. 26. n. 93; *Asch. et Magn. in Bot. Zeit.* 1870, p. 784; *Hance in Journ. Linn. Soc.* xiii. p. 80, et *in Journ. Bot.* 1874, p. 260.

CHIHLI: Peking (*David*!); KIANGSU: Shanghai (*Faber*!); KIANGSI: Kiukiang (*Mœllendorff*, hb. *Hance*!). Mus. Brit.; Herb. Kew.

Mandshuria and Japan.

1. **Trapa natans**, *Linn. Sp. Pl.* ed. 1, p. 120; *DC. Prodr.* iii. p. 63; *Debeaux, Fl. Tchef.* p. 62; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 590.

Trapa bicornis, *Linn. f. Suppl.* p. 128; *DC. Prodr.* iii. p. 64; *Debeaux, Fl. Shangh.* p. 31.

Trapa chinensis, *Lour. Fl. Cochinch.* p. 86; *Bretschn. Early Res.* p. 152.

Trapa bispinosa, *Roxb. Fl. Ind.* i. p. 428; *DC. Prodr.* iii. p. 64; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 590.

CHIHLI: Peking (*Bretschneider*!); FORMOSA (*Oldham*, 122!); HUPEH: Ichang and neighbourhood (*A. Henry*!). Mus. Brit.; Herb. Kew.

Recorded from several other provinces, and probably found nearly all over China.

Widely spread in Europe, Asia, and Africa, extending from subarctic regions through the tropics.

*Trapa bispinosa* and *T. natans* are usually retained as distinct species, and they are here reduced to one, because we failed to sort the Chinese specimens into two species. There are numerous intermediate forms, and if we recognize more than one of them as a species we may recognize an unlimited number.

## 59. SAMYDACEÆ.

1. **Casearia glomerata**, *Roxb. Fl. Ind.* ii. p. 419; *DC. Prodr.* ii. p. 49; *Benth. Fl. Hongk.* p. 122; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 591.

HONGKONG (*Wright*! *Ford*!). Herb. Kew.

Eastern India and perhaps also Malaya.

2. **Casearia membranacea**, *Hance in Journ. Bot.* 1868, p. 113

HAINAN: near Kiengchau (*Sampson*, hb. *Hance*, 13669!). Mus. Brit.

Possibly the same as the preceding.

3. **Casearia subrhombea**, *Hance in Journ. Bot.* 1885, p. 323.

KWANGTUNG: Funyun mountain (*Ford*, hb. *Hance*, 22290!). Mus. Brit.

4. **Casearia**, sp.

FORMOSA (*Oldham*, 498!). Herb. Kew.

This was originally distributed as a Euphorbiacea. There is a

fragment of another species of the genus in the Kew Herbarium from Yunnan.

1. **Homalium fagifolium**, *Benth. in Journ. Linn. Soc.* iv. p. 35, et *Fl. Hongk.* p. 122.

Blackwellia fagifolia, *Lindl. in Trans. Hort. Soc. Lond.* vi. p. 269; *Benth. in Hook. Kew Journ. Bot.* iv. p. 119; *Hook. et Arn. Bot. Beech. Voy.* p. 178.

Blackwellia padiflora, *Lindl. in Bot. Reg.* t. 1308; *Walp. Rep.* i. p. 548 (*sphalmate* pubiflora).

Blackwellia Loureiri, *Benth. in Hook. Lond. Journ. Bot.* i. p. 482.

Astranthus cochinchinensis, *Lour. Fl. Cochinch.* p. 222.

SOUTH CHINA: without locality (*Reeves*! *Millett*!); HONGKONG (*Wright*! *Champion*! *Urquhart*! *Hinds*! *Wilford*!). Mus. Brit.; Herb. Kew.

## 60. PASSIFLORACEÆ.

1. **Passiflora ligulifolia**, *Masters in Trans. Linn. Soc.* xxvii. p. 632.

Passiflora hainanensis, *Hance in Journ. Bot.* 1878, p. 227.

KWANGTUNG: Soongkong Island (*Wright*!), Pakhoi (*Playfair*!); HAINAN: Hoihau (*Bullock & Watters*, hb. *Hance*, 20232!). Mus. Brit.; Herb. Kew.

Mr. Playfair's specimen from Pakhoi exhibits a remarkable degree of variation in the foliage, leaving little room for doubt that this is the same as *Passiflora Horsfieldii*, Blume (syn. *Disemma Horsfieldii*, Miq.), a native of Java and Madura, and also collected by Simon in the Mikir hills near Gowhatly, north-east of the Khasia hills; but it would be rash to unite them without carefully examining the flowers of all the specimens. Some of the leaves of Playfair's specimen are barely a third of an inch broad and as much as six inches long, with a white band down the centre; while the broadest are two inches by four inches, and destitute of any marking.

*Passiflora cærulea*, Linn., and *P. fœtida*, Linn., American species, are naturalized in Hongkong, and Oldham collected a barren branch of the former at Tamsui in Formosa.

## 61. CUCURBITACEÆ.

1. **Trichosanthes Anguina**, *Linn. Sp. Pl.* ed. 1, p. 1008; *Lour. Fl. Cochinch.* p. 588; *DC. Prodr.* iii. p. 314; *Clarke in Hook. f.*

*Fl. Brit. Ind.* ii. p. 610; *Cogn. in DC. Monogr.* iii. p. 359; *Lam. Ill.* t. 794; *Bot. Mag.* t. 722.

Cucurbita sinensis, etc., *Til. Pis.* p. 49, t. 22; *Sab. Hort. Rom.* i. t. 71.

Anguina sinensis, etc., *Mich. Gen.* p. 12, t. 9; *Mill. Fig. Pl.* t. 32.

This plant is recorded as Chinese, and there are cultivated specimens in the Kew Herbarium which were raised from Chinese seed; but we have seen no wild specimens, and Clarke, *loc. cit.*, gives no localities for it in India. He suggests that it is a cultivated race of *T. cucumerina*, Linn., differing only in the fruit.

2. **Trichosanthes cucumeroides**, *Maxim. in Franch. et Sav. Enum. Pl. Jap.* p. 172; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 220; *Cogn. in DC. Monogr.* iii. p. 382.

Bryonia cucumeroides, *Ser. in DC. Prodr.* iii. p. 308.

Trichosanthes chinensis, *Ser. in DC. Prodr.* iii. p. 315? ex *Cogn.*

FORMOSA: Tamsui (*Oldham*, 130, 131, 132!); HONGKONG (*Ford*!). Mus. Brit.; Herb. Kew.

Japan.

3. **Trichosanthes Kirilowii**, *Maxim. in Prim. Fl. Amur.* p. 482, in nota; *Cogn. in DC. Monogr.* iii. p. 370.

Eopepon vitifolius, *Naud. in Ann. Sc. Nat.* 5me série, v. p. 32; *Rev. Hort.* 1868, p. 435.

Eopepon aurantiacus, *Naud. in Huber Cat.* 1870, *Suppl.* p. 6, et 1872, p. 8.

Trichosanthes palmata, *Hance in Journ. Bot.* 1878, p. 227, non *Roxb.*

Trichosanthes palmata, *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 606, partim.

CHIHLI: near Peking (*Bushell! Bretschneider!*); KIANGSU: Shanghai (*Maingay* 583! *Faber*!); KIANGSI: Kiukiang (hb. *Forbes*!); FOKIEN: Amoy (*Fortune*, 85 & 104!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: North river (*Sampson & Hance*, 13745); HONGKONG (*Ford*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Mongolia.

Almost all of the specimens cited above are referred to this species by Cogniaux, whom we have followed, though we do not feel quite satisfied that they all belong to one species. The Hongkong specimen attributed to Forbes, but actually collected by Ford, has the leaves quite glabrous and naked on both surfaces.

Oldham's 133, from Tamsui, Formosa, we should have taken for this species, but the seeds do not agree with Cogniaux's de-

scription. As in *Trichosanthes dicælosperma*, Clarke, there are three cavities within the testa, the polar ones being smaller and empty, and the central portion of the seed is encircled by a thick rugose band, while the ends are smooth.

4. **Trichosanthes multiloba,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 82; *Cogn. in DC. Monogr.* iii. p. 372 ?

HUPEH: Ichang, Patung, and Nanto (*A. Henry* !). Herb. Kew.

These specimens should perhaps be referred to *T. Kirilowii.*

5. **Trichosanthes,** sp.; foliis breviter petiolatis membranaceis rotundato 5-lobatis, floribus femineis brevissime pedunculatis.

CHEKIANG: Ningpo mountains (*Faber* !). Herb. Kew.

There is also in the Kew Herbarium an imperfect specimen of a *Trichosanthes* from Patung (*Henry*), which is probably specifically different from any of the foregoing.

1. **Gymnopetalum cochinchinense,** *Kurz in Journ. As. Soc. Beng.* xl. 2. p. 57; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 611; *Cogn. in DC. Monogr.* iii. p. 391.

Scotanthus tubiflorus, *Naud. in Ann. Sc. Nat.* 4me série, xvi. p. 173, t. 3; *Hance in Journ. Bot.* 1879, p. 10.

KWANGTUNG: near Canton (*Fontanier* ex *Cogniaux*); HAINAN (*Bullock*, hb. *Hance* !). Mus. Brit.

India and Malaya.

2. **Gymnopetalum,** sp. ?

*Folia* pedatim 5-foliolata breviter petiolata vix scabrida, tenuia, discoloria, 3–4 poll. diametro, foliolis ovato-oblongis vix acutis, remote denticulatis, lateralibus lobatis. *Flores* ♂ fere glabri, racemosi bracteis amplis lobatis vel laceratis subtendi, calycis tubo elongato, petalis integris.

KWANGTUNG: Lofaushan (*Ford* !). Herb. Kew.

[*Lagenaria vulgaris*, Ser., is cultivated in China, and possibly wild in some of the warmer parts; but its native country is uncertain.—See A. DeCandolle, Orig. Pl. Cult. p. 195.]

1. **Luffa acutangula,** *Roxb. Hort. Beng.* p. 70, et *Fl. Ind.* iii. p. 713; *DC. Prodr.* iii. p. 302, *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 615; *Cogn. in DC. Monogr.* iii. p. 459.

KWANGTUNG: Macao (hb. *Berol.* ex *Cogniaux*).

Tropical Asia and Africa, and naturalized in America.

2. **Luffa cylindrica**, *Rœm. Syn.* fasc. ii. p. 63, ex *Cogniaux in DC. Monogr.* iii. p. 456.

Luffa ægyptiaca, *Mill.* ex *Hook. f. in Oliv. Fl. Trop. Afr.* ii. p. 530; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 614; *Bretschn. Early Res.* p. 153.

Momordica cylindrica, *Linn. Sp. Pl.* ed. 1, p. 1009; *DC. Prodr.* iii. p. 311; *Lour. Fl. Cochinch.* p. 590.

This is cultivated throughout the tropics, and its native country is uncertain. Cogniaux and others record it from China.

1. **Benincasa cerifera**, *Savi in Bibl. Ital.* ix. (1818) p. 158, cum icone; *DC. Prodr.* iii. p. 303; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 616; *Bretschn. Early Res.* p. 153.

Benincasa hispida, *Cogn. in DC. Monogr.* iii. p. 513.

Lagenaria dasystemon, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 81, fide *Cogn.*

Cultivated in China, Japan, India, and Africa, and often met with in a wild state: but it is uncertain where it is indigenous. Herb. Kew.

1. **Momordica Charantia**, *Linn. Sp. Pl.* ed. 1, p. 1009; *DC. Prodr.* iii. p. 311; *Lour. Fl. Cochinch.* p. 589; *Benth. Fl. Hongk.* p. 125; *Debeaux, Fl. Tients.* p. 22; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 616; *Bot. Mag.* t. 2455; *Bretschn. Early Res.* p. 153.

Cultivated in China and nearly all warm countries, and also wild. Whether indigenous within our limits is uncertain, though it is supposed to be indigenous in tropical Asia. Herb. Kew.

2. **Momordica cochinchinensis**, *Spreng. Syst. Veg.* iii. p. 14; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 618; *Cogn. in DC. Monogr.* iii. p. 444; *Franchet, Pl. David.* p. 135.

Momordica mixta, *Roxb. Fl. Ind.* iii. p. 709; *Bot. Mag.* t. 5145.

Muricia cochinchinensis, *Lour. Fl. Cochinch.* p. 596; *DC. Prodr.* iii. p. 318.

CHEKIANG: Ningpo mountains (*Faber*!); KIANGSI: Kiukiang (*David*, 908! *Shearer*!); FORMOSA (*Oldham*, 127!); KWANGTUNG: Lofaushan (*Ford*!). Mus. Brit.; Herb. Kew.

India, Malaya, and the Philippine Islands.

[*Momordica dioica*, Roxb. (syn. *M. sicyoides*, Ser. in DC. Prodr. iii. p. 312) is figured in Braam's Ic. Pl. Ch. t. 12, but we have seen no Chinese specimen, nor does Cogniaux record any.]

1. **Thladiantha dubia**, *Bunge, Enum. Pl. Chin. Bor.* p. 29; *Naud. in Ann. Sc. Nat.* 4[me] série, xii. p. 150, t. 10, et 5[me] série, v. p. 11; *Bot. Mag.* t. 5469 (excl. pl. fem. et fr.); *Cogn. in DC. Monogr.* iii. p. 422, non *Clarke in Hook. f. Fl. Brit. Ind.*, vide *Clarke in Journ. Linn. Soc.* xv. p. 126; *Franchet, Pl. David.* p. 135.

CHIHLI: near Peking (*Bunge*! and others). Mus. Brit.; Herb. Kew.

We have seen no wild specimens that we could refer to this species with certainty. The large solitary male flowers characterize this species. It has been confused with the Indian *T. calcarata*, Clarke, which has racemose male flowers subtended by large deeply-cut bracts.

2. **Thladiantha? Henryi**, *Hemsl.*, n. sp.

*Planta* scandens, fere undique glabra, ramulis angulatis, cirrhis 2-partitis. *Folia* longiuscule petiolata, tenuia, rotundato-cordata (sinu profundo lobis contiguis), usque 5 poll. longa et 5 poll. lata, acuminata, calloso-denticulata, subtus glabra vel glabrescentia, supra scabrida; petiolus gracilis, scabridus, usque 3 poll. longus. *Flores* (♂ tantum adsunt) lutei (*Henry*), glabrescentes, $1\frac{1}{2}$–2 poll. diametro, laxe corymbosi, graciliter pedicellati, corymbis longe graciliterque pedunculatis; calycis tubus brevissimus, lobis lanceolatis subacutis petalis brevioribus; petala patentia, striata; stamina 5, libera. *Fructus* 4 poll. diametro (*Henry*).

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

The genus of this plant is a little doubtful, but, so far as the material goes, the characters are nearly those of *Thladiantha*. Dr. Henry describes the fruit as four inches in diameter, but he does not send any. The fruit of all the known species is, however, much smaller.

3. **Thladiantha nudiflora**, *Hemsl.*, n. sp. (Plate VIII.)

*Planta* scandens, ramulis floriferis graciliusculis sulcatis parce pilosis, cirrhis 2-partitis. *Folia* petiolata, crassiuscula nec coriacea, rotundato-cordata vel ovato-cordata (lobis latis contiguis), $2\frac{1}{2}$–5 poll. longa, 2–4 poll. lata, acute acuminata, denticulata, supra scabrida, subtus puberula; petiolus parce pilosus, 1–$2\frac{1}{2}$ poll. longus. *Flores* lutei (*Henry*), puberuli, ♀ solitarii, ♂ racemosi, racemis petiolis vix longioribus bracteis parvis cito deciduis; calycis tubus brevis campanulatus, lobis ovato-lanceolatis; petala ovato-lanceo-

lata, 6–8 lineas longa; stamina 5, libera. *Fructus* ruber (*Henry*), breviter pedunculatus, ovoideus, $1\frac{1}{4}$–$1\frac{1}{2}$ poll. longus, ecostatus, asper; semina numerosa, grisea, obovoidea, compressa, rugulosa.

HUPEH: Ichang and immediate neighbourhood, and Nanto and mountains to the northward (*A. Henry*!) Herb. Kew.

Root and fruit used in medicine, according to Dr. Henry.

The foliage of this, of *T. dubia*, and of *T. calcarata* is hardly distinguishable; but the male flowers offer distinctions easily recognized. In the present they are in short naked racemes; in *T. dubia* they are solitary and much larger; while *T. calcarata* has them in pedunculate racemes with large bracts.

4. **Thladiantha**, sp. indescripta ?; floribus ♀ parvis brevissime pedunculatis, petalis angustis.

KIANGSU: Shanghai (*Maingay*, 581!). Herb. Kew.

In foliage this is very similar to *T. dubia* and *T. nudiflora*, but the flowers are very different.

1. **Cucumis Melo**, *Linn. Sp. Pl.* ed. 1, p. 1011; *DC. Prodr.* iii. p. 300; *Lour. Fl. Cochinch.* p. 591; *Clarke, in Hook. f. Fl. Brit. Ind.* ii. p. 620; *Cogn. in DC. Monogr.* iii. p. 482; *Jacq. Monog. du Mélon*, t. 1–33; *Naud. in Ann. Sc. Nat.* 4[me] série, xvi. p. 161 (var. cantonianus); *Debeaux, Fl. Tients.* p. 21, *Fl. Tchef.* p. 62, et *Fl. Shangh.* p. 32; *Bretschn. Early Res.* p. 153; *A. DC. Orig. Pl. Cult.* p. 205.

Cultivated throughout China; probably indigenous both in tropical Asia and tropical Africa. Herb. Kew.

2. **Cucumis sativus**, *Linn. Sp. Pl.* ed. 1, p. 1012; *Lour. Fl. Cochinch.* p. 591; *DC. Prodr.* iii. p. 300; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 620; *Cogn. in DC. Monogr.* iii. p. 498; *A. DC. Orig. Pl. Cult.* p. 210; *Bretschn. Early Res.* p. 153.

Commonly cultivated in China, and supposed to have originated in Northern India. Herb. Kew.

3. **Cucumis trigonus**, *Roxb. Fl. Ind.* iii. p. 722; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 619, excl. syn. fide *Cogn. in DC. Monogr.* iii. p. 485; *Wight, Ic. Pl. Ind. Or.* t. 497, et *Illustr.* t. 105 bis.

HUPEH: Ichang (*A. Henry* ?). Herb. Kew.

Persia to Malaya.

[Various gourds (*Cucurbita maxima*, Duch., *C. Pepo*, Linn., and

*C. moschata*, Duch.) are cultivated in China, and probably native in Southern Asia. See Bretschn. Early Res. p. 153, and DC. Orig. Pl. Cult. p. 199. The Water Melon (*Citrullus vulgaris*, Schrad.), of African origin, is also largely cultivated, and naturalized in some parts of China.]

1. **Coccinia indica**, *Wight et Arn. Fl. Penins. Ind. Or.* p. 347; *Wight, Ill. Ind. Bot.* t. 105 bis; *Hook. Ic. Pl.* t. 138.

Cephalandra indica, *Naud. in Ann. Sc. Nat.* 5$^{me}$ série, v. p. 16; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 621.

Coccinia cordifolia, *Cogn. in DC. Monogr.* iii. p. 531.

KWANGTUNG: Macao (*Meyen* ex *Cogniaux*); HAINAN (*Swinhoe*!). Herb. Kew.

Tropical Asia and Africa.

1. **Zehneria umbellata**, *Thwaites, Enum. Pl. Ceyl.* p. 125; *Hance in Journ. Linn. Soc.* xiii. p. 104; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 625.

Solena heterophylla, *Lour. Fl. Cochinch.* p. 514.

Bryonia hastata, *Lour. Fl. Cochinch.* p. 594.

Karivia umbellata, *Arn. in Hook. Journ. Bot.* iii. (1841), p. 275; *Benth. Fl. Hongk.* p. 124.

Harlandia bryonioides, *Hance in Walp. Ann.* ii. p. 648.

Momordica heterophylla, *Cogn. in DC. Monogr.* iii. p. 618.

FORMOSA: Tamsui (*Oldham*, 123, 124, 125! *Hancock*!); KWANGTUNG: Whampoa (*Hance*, 4485!); HONGKONG (*Wright*! *Hance*!). Herb. Kew.

Throughout India and Malaya southward to North Australia.

2. **Zehneria Baueriana**, *Endl. Prodr. Fl. Norf.* p. 69, et *Iconogr.* tt. 116, 117, non *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 624.

Melothria Baueriana, *F. Muell. Fragm. Fl. Austral.* vi. p. 188; *Cogn. in DC. Monogr.* iii. p. 610.

LUCHU ARCHIPELAGO (*Wright*!). Herb. Kew.

Bonin, Norfolk, Erromango, and New Caledonia.

3. **Zehneria mysorensis**, *Arn. in Hook. Journ. Bot.* iii. p. 275; *Wight in Ann. & Mag. Nat. Hist.* viii. p. 260.

Zehneria Baueriana, *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 624, non *Endl.*

Melothria mucronata, *Cogn. in DC. Monogr.* iii. p. 608.

Zehneria mucronata, *Miq. Fl. Ind. Bat.* i. 1. p. 656.

Formosa: north-west (*Swinhoe*!), Tamsui (*Oldham*, 128, 134!). Herb. Kew.

India and Malaya to the Philippine Islands and New Guinea.

1. **Mukia scabrella**, *Arn. in Hook. Journ. Bot.* iii. p. 276; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 623; *Wight, Illustr. Ind. Bot.* t. 105 bis.

Melothria maderaspatana, *Cogn. in DC. Monogr.* iii. p. 623.

Bryonia scabrella, *Linn. f. Supp.* p. 424; *Wight, Ic. Pl. Ind. Or.* t. 501.

Cucumis maderaspatanus, *Linn. Sp. Pl.* ed. 1, p. 1012.

Formosa: without locality (*Swinhoe*!), Tamsui (*Oldham*, 129!). Herb. Kew.

Tropical Asia, Africa, and Australia.

1. **Melothria cucumerina**, *Naud. in Ann. Sc. Nat.* 5me série, vi. p. 10; *Cogn. in DC. Monogr.* iii. p. 590.

Eastern China: without locality (ex *Naudin*).

2. **Melothria indica**, *Lour. Fl. Cochinch.* p. 35; *DC. Prodr.* iii. p. 313; *Naud. in Ann. Sc. Nat.* 4me série, xvi. p. 169, t. 2; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 626; *Cogn. in DC. Monogr.* iii. p. 598.

Æchmandra indica, *Arn. in Hook. Journ. Bot.* iii. p. 274.

Chekiang: Ningpo mountains (*Faber*!); Kiangsi: Kiukiang (*Shearer*!); Kwangtung: Whampoa (*Hance*, 12460!), Pakhoi (*Playfair*!). Mus. Brit.; Herb. Kew.

India and Malaya to the Philippine Islands.

3. **Melothria odorata**, *Hook. f. et Thoms.* ex *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 626.

Melothria leucocarpa, *Cogn. in DC. Monogr.* iii. p. 601.

Æchmandra odorata, *Hook. f. et Thoms.* ex *Benth. Fl. Hongk.* p. 124.

Rhynchocarpa odorata, *Hance in Journ. Linn. Soc.* xiii. p. 104.

Kiangsu: Shanghai (*Maingay*?); Hongkong (*Harland & Hance*, 779! 1149!). Mus. Brit.; Herb. Kew.

India and Malaya to the Philippine Islands.

Cogniaux, *loc. cit.*, although he cites the 'Flora Hongkongensis,' does not record this species as Chinese; and Hance's 779 he refers to *M. indica*. Perhaps all the Chinese specimens belong to the latter species.

[*Melothria pendula*, Linn., a native of eastern North America

and Mexico, is recorded from Macao (*Fontanier*) by Cogniaux; but we strongly suspect an error in the labelling of the specimen.]

1. **Actinostemma lobatum**, *Maxim. in Franch. et Sav. Enum. Pl. Jap.* i. p. 175; *Cogn. in DC. Monogr.* iii. p. 921 (varietates); *Franchet, Pl. David.* p. 136.

Mitrosicyos lobatus, *Maxim. Prim. Fl. Amur.* p. 112, t. 7.

Karivia? longicirrha, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 80.

Actinostemma tenerum, *Naud. in Ann. Sc. Nat.* 5me série, v. p. 39, non *Griff.* et excl. loc. Himalayæ.

CHIHLI: Peking (*David*, 2308, ex *Franchet*); SHINGKING (*Ross*!); KIANGSU (*Poli*, ex *Franchet* in litt.); CHEKIANG: Ningpo mountains (*Faber*!); KIANGSI: Kiukiang (*Shearer*!); KWANGTUNG (*Wenyon*!). Herb. Kew.

Mandshuria and Japan.

2. **Actinostemma paniculatum**, *Maxim.*, ex *Cogn. in DC. Monogr.* iii. p. 920.

Mitrosicyos paniculatus, *Maxim. Prim. Fl. Amur.* p. 113.

CHIHLI: mountains near Peking (ex *Cogniaux*).

3. **Actinostemma racemosum**, *Maxim.* ex *Cogn. in DC. Monogr.* iii. p. 922.

Mitrosicyos racemosus, *Maxim. in Prim. Fl. Amur.* p. 112, in nota.

Pomasterium japonicum, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 80.

Actinostemma japonicum, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 188.

CHIHLI: near Peking (*Bretschneider*!). Herb. Kew.

Japan.

The differences between this and *A. lobatum* are not obvious; but the specimens at Kew are not complete.

4. **Actinostemma tenerum**, *Griff. Pl. Cantor.* p. 24, t. 3; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 633, excl. syn. et loc. Asiæ orientalis; *Cogn. in DC. Monogr.* iii. p. 919.

ANWHEI: near Nanking (*Leclancher* ex *Cogniaux*).

Eastern India.

Many of the specimens we have referred to *A. lobatum* differ very little from this except in the simple racemes of the male flowers.

1. **Gynostemma pedatum**, *Blume, Bijdr.* p. 23; *Walp. Rep.* i. p. 98; *Cogn. in DC. Monogr.* iii. p. 913; *Franchet, Pl. David.* p. 136.

Zanonia cissoides, *Wall. Pl. As. Rar.* ii. p. 2.

Alsomitra cissoides, *Rœm. Syn.* ii. p. 118.

Enkylia digyna *et* E. trigyna, *Griff. Pl. Cantor.* p. 27; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 210.

Gynostemma cissoides, *Franch. et Sav. Enum. Pl. Jap.* i. p. 176.

KIANGSI: Kiukiang (*Shearer* !); HUPEH: Nanto and mountains to the northward (*A. Henry* !). Herb. Kew.

India, Malaya, and Japan.

2. **Gynostemma**? species nova, vel genus novum hujus affinitatis; foliis pedatis, foliolis crenatis, floribus ♂ laxe graciliterque paniculatis circiter 9 lineas diametro, pedicellis filiformibus, staminibus 5 liberis.

HUPEH: Patung district (*A. Henry*, 2436 !). Herb. Kew.

## 62. BEGONIACEÆ.

1. **Begonia circumlobata,** *Hance in Journ. Bot.* 1883, p. 203.

KWANGTUNG: along the Lienchau river near the village Sinshi (*B. C. Henry*, hb. *Hance*, 22124 !), Lofaushan (*Ford* ! *Faber* !). Mus. Brit.; Herb. Kew.

2. **Begonia cyclophylla,** *Hook. f. Bot. Mag.* t. 6926.

KWANGTUNG: living plant sent to Kew from the Hongkong botanic garden by Mr. Ford. Herb. Kew.

3. **Begonia Evansiana,** *Andrews, Bot. Rep.* t. 627; *Bot. Mag.* t. 1473; *DC. Prodr.* xv. p. 313; *Franchet, Pl. David.* p. 136.

Begonia discolor, *Ait. Hort. Kew.* ed. 2, v. p. 184; *Walp. Rep.* ii. p. 206; *Bunge, Enum. Pl. Chin. Bor.* p. 57.

Diploclinium Evansianum, *Lindl. Veg. Kingd.* ed. 1, p. 318, f. 220.

Begonia grandis, *Dryand. in Trans. Linn. Soc.* i. p. 163.

Knesebeckia discolor, *Klotzsch, Begon.* p. 44.

CHIHLI: Peking (*Bushell* !); CHEKIANG: Ningpo mountains (*Faber* !); KIANGSI: Kiukiang (*Shearer* !). Herb. Kew.

4. **Begonia fimbristipula,** *Hance in Journ. Bot.* 1883, p. 202.

KWANGTUNG: Lofaushan and Tingushan (*Ford* !). Herb. Kew.

Mr. Ford sends leaves of this or a closely allied species, which are of a deep red colour, with the following note:—"Leaves of a Begonia used and sold by the priests at Tingushan monastery as a cure for fever, &c. The leaves are put in 'Samshin' (native spirit) and allowed to remain some hours, when the liquor is drunk. The leaves are sold also in Peking, after being brought

from Tingushan, where they have a great reputation." In Hance's herbarium are leaves of the same species collected by Faber near Canton.

5. **Begonia Henryi**, *Hemsl.*, n. sp.

*Herba* nana, tuberosa, paucifoliata, caule interdum repente. *Folia* tenuia, petiolata (petiolus gracilis interdum 6 poll. longus), leviter oblique rotundato-cordata, sinu aperto, absque petiolo usque ad 5 poll. longa, apice rotundata vel interdum subacuta crenato-dentata undique parce setulosa. *Scapus* vel pedunculus 4–6 poll. altus, gracilis, basi tantum foliosus, dioicus (?) sæpius quoad ♂ triflorus, bracteis lineari-oblongis fimbriatis. *Flores* rubri (*Henry*), 1–1¼ poll. diametro, glabra, apetala (an semper ?); ♂ sepalis cordato-orbicularibus, staminibus numerosis, filamentis liberis filiformibus; ♀ sepalis obovato-rotundatis. *Capsula* leviter furfuracea, inæqualiter trialata, trilocularis, placentis lamelliformibus indivisis; semina matura non visa.

HUPEH: Ichang and Nanto and mountains to the northward (*A. Henry*!). Herb. Kew.

A species of the same group as *B. Fordii*.

6. **Begonia laciniata**, *Roxb. Fl. Ind.* iii. p. 649; *Benth. Fl. Hongk.* p. 126; *DC. Prodr.* xv. 1. p. 348 (γ. Bowringiana); *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 645.

Begonia Bowringiana, *Champ. in Hook. Kew Journ. Bot.* iv. p. 120; *Bot. Mag.* t. 5182.

Doratometra Bowringiana, *Seem. Bot. Voy. 'Herald,'* p. 379.

FORMOSA: north-east (*Wilford*!), eight miles north of Tamsui (*Hancock*!), Kelung (*Ford*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wright*! *Wilford*!). Mus. Brit.; Herb. Kew.

Typical *Begonia laciniata* is common in Eastern India. The specimens from Formosa differ in being almost perfectly glabrous, and Oldham's 135 thence is probably this species.

7. **Begonia leprosa**, *Hance in Journ. Bot.* 1883, p. 203.

KWANGTUNG: near Samtin on the Lienchau river, about 230 miles above Canton (*B. C. Henry*, hb. *Hance*, 22098!). Mus. Brit.

8. **Begonia Roxburgii**, *A. DC. Prodr.* xv. 1. p. 398; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 635, var.?

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

The specimens bear one male flower and one fruit, and in foliage closely resemble Indian ones from Chittagong.

9. **Begonia sinensis,** *A. DC. in Ann. Sc. Nat.* 4e série, xi. p. 125, et *in Prodr.* xv. 1. p. 313; *Hance in Journ. Bot.* 1874, p. 260.

CHIHLI: Pohuashan (*Bretschneider*!), Chuilungshan (*Hancock*!); KIANGSI: Kiukiang (*Mœllendorff*, hb. *Hance*); HUPEH: Ichang and Nanto and mountains to the northward (*A. Henry*!). Mus. Brit.; Herb. Kew.

10. **Begonia,** sp.; caulescens, foliis parvis leviter obliquis ovatis grosse crenatis.

KWANGTUNG (*Wenyon*!). Herb. Kew.

A fragment of a very distinct species.

[*Cactaceæ.*—Hance (Journ. Linn. Soc. xiii. p. 104) records *Opuntia Dillenii*, Haw., an American plant, as naturalized among rocks on the sea-coast of Hongkong.]

## 63. FICOIDEÆ.

1. **Tetragonia expansa,** *Murr. Comm. Goett.* vi. p. 13; *Ait. Hort. Kew.* ed. 1, ii. p. 178; *DC. Prodr.* iii. p. 452; *Benth. Fl. Austr.* iii. p. 325; *Hance in Journ. Bot.* 1870, p. 276, et 1878, p. 227; *Bot. Mag.* t. 2362.

KWANGTUNG: sea-sand, Macao (*Hance*, 10139!); HONGKONG (*Ford*!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*, 659! *Oldham*, 267!). Mus. Brit.; Herb. Kew.

Japan southward to Australia and New Zealand, and in South America.

1. **Sesuvium Portulacastrum,** *Linn. Sp. Pl.* ed. 2, p. 684; *DC. Prodr.* iii. p. 453; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 659; *Hemsl. in Bot. Voy.* '*Challenger,*' i. 3. p. 155; *Bot. Mag.* t. 1701; *Rohrb. in Mart. Fl. Bras.* xiv. 2. p. 309, t. 70.

Pyxipoma polyandrum, *Fenzl in Ann. Wien. Mus.* ii. p. 293; *Miq. Fl. Ind. Bat.* i. p. 1060; *Maxim. in Mél. Biol.* xii. p. 460.

Trianthema polyandra, *Blume, Bijdr.* p. 1137; *DC. Prodr.* iii. p. 352.

Sesuvium repens *et* S. longifolium, *Willd. Enum. Pl. Hort. Berol.* p. 521.

Sesuvium revolutifolium, *Ort. Dec.* p. 19; *DC. Prodr.* iii. p. 453.

Psammanthe marina, *Hance in Walp. Ann.* ii. p. 659.

KWANGTUNG: sandy sea-shore at Paksha (*Hance*, 1919!) LUCHU ARCHIPELAGO (*Tashiro* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Almost cosmopolitan on tropical and subtropical sea-shores, and extending into some temperate regions.

We are not quite sure that *Pyxipoma*, Fenzl, is correctly referred here; but Hance's *Psammanthe* is certainly *Sesuvium*, and so is a specimen in the Kew Herbarium from Timor, received from the Paris Herbarium, and labelled *Trianthema polyandrum*, Blume. Rohrbach, *loc. supr. cit.*, refers all the American forms of *Sesuvium* to *S. Portulacastrum*, and states that he does not know whether the Indian *S. repens* is sufficiently distinct to be maintained as a species. Bentham, Baker, Clarke, and other English botanists unite the two, and we follow them; yet the plant varies much in different localities, hence probably the confusion and multiplicity of names. Maximowicz evidently holds a different view, as he distinguishes *Pyxipoma*, and concerning *Sesuvium Portulacastrum* he records it from Kamtschatka (in Bull. Soc. Nat. Mosc. 1879, p. 21), adding "omnino typica planta Americana, nunc in Asia primum detecta."

1. **Mollugo Spergula**, *Linn. Sp. Pl.* ed. 2, p. 131; *DC. Prodr.* i. p. 391; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 662; *Hance in Journ. Bot.* 1879, p. 11.

HAINAN (*Bullock*! *Swinhoe*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and Australia.

2. **Mollugo stricta**, *Linn. Sp. Pl.* ed. 2, p. 131; *DC. Prodr.* i. p. 391; *Benth. Fl. Hongk.* p. 23; *Franchet, Pl. David.* p. 137; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 663.

Mollugo triphylla, *Lour. Fl. Cochinch.* p. 62.

SHANTUNG (*Maingay*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Wright*!). Mus. Brit.; Herb. Kew.

India, Malaya, Polynesia, and Japan.

## 64. UMBELLIFERÆ *.

1. **Hydrocotyle asiatica**, *Linn. Sp. Pl.* ed. 1, p. 234; *DC. Prodr.* iv. p. 62; *Benth. Fl. Hongk.* p. 134; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 669; *Maxim. in Mél. Biol.* xii. p. 461; *Wight, Ic. Pl. Ind. Or.* t. 565.

* So large a proportion of our specimens of the plants of this Order are in a young state that we have experienced great difficulties in determining many of them, whilst others remain quite doubtful.

Hydrocotyle abbreviata, *A. Rich. Monogr. Hydr.* p. 43, fig. 19; *DC. Prodr.* iv. p. 63?

Trisanthus cochinchinensis, *Lour. Fl. Cochinch.* p. 176?

FORMOSA: Tamsui (*Oldham*, 141!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Hance*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Almost everywhere in the tropics and extending into some temperate regions, including Japan, the Bermudas, and Tasmania.

Var. **crispata**, *Maxim. in Mél. Biol.* xii. p. 461.

Hydrocotyle lurida, *Hance in Walp. Ann.* ii. p. 690.

HONGKONG (*Hance*!). Mus. Brit.; Herb. Kew.

2. **Hydrocotyle burmanica**, *Kurz in Journ. As. Soc. Beng.* xl. 2. p. 60; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 668.

KWANGTUNG: Lofaushan, at 3100 feet (*Ford*!). Herb. Kew.

Tenasserim and Burma.

3. **Hydrocotyle javanica**, *Thunb. Diss.* ii. p. 415, t. 3; *DC. Prodr.* iv. p. 67; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 667; *Hance in Journ. Bot.* 1883, p. 321; *Maxim. in Mél. Biol.* xii. p. 462.

Hydrocotyle nepalensis, *Hook. Exot. Fl.* i. t. 30.

Hydrocotyle polycephala, *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* i. p. 366; *Wight, Ic. Pl. Ind. Or.* t. 1003.

KWANGTUNG: Lofaushan, at 800 feet (*Ford*!). Mus. Brit.; Herb. Kew.

Tropical Asia to Southern Japan, Eastern Africa, and Australia.

4. **Hydrocotyle rotundifolia**, *Roxb. Cat. Hort. Beng.* p. 21, et *Fl. Ind.* ii. p. 88; *DC. Prodr.* iv. p. 64; *Wight, Ic. Pl. Ind. Or.* t. 564; *Benth. Fl. Hongk.* p. 134; *Hance in Ann. Sc. Nat.* 4me série, xviii. p. 220; *Maxim. in Mél. Biol.* xii. p. 461.

Hydrocotyle nitidula, *A. Rich. Monogr. Hydr.* p. 60, fig. 33.

Hydrocotyle sibthorpioides, *Lam. Encycl.* iii. p. 153; *Franch. et Sav. Enum. Pl. Jap.* i. p. 178.

Hydrocotyle Batrachium, *Hance in Ann. Sc. Nat.* 4me série, xviii. p. 220.

Hydrocotyle perexigua, *Hance in Walp. Ann.* ii. p. 691.

KIANGSU: Shanghai (*Maingay*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 138, 139, 140! *Watters*!), Kelung (*Ford*!); HUPEH: Nanto and mountains to the

northward (*A. Henry* !); KWANGTUNG: Pakhoi (*Playfair* !), Whampoa (*Hance*, 7431 !); LUCHU ARCHIPELAGO (*Wright* !). Mus. Brit.; Herb. Kew.

Asia and Africa.

Oldham's 139 and Maingay's specimen from Shanghai closely resemble in foliage *H. Wilfordi*.

5. **Hydrocotyle Wilfordi**, *Maxim. in Mél. Biol.* xii. p. 463.

COREA: Port Chusan (*Wilford*, 904 !). Herb. Kew.

Japan.

[*Hydrocotyle sinensis*, Thunb. (Diss. Hydr. p. 3), syn. *H. chinensis*, Linn. (Sp. Pl. ed. 1, p. 234), is an obscure plant, but supposed to be the North-American *Crantzia lineata*.]

1. **Sanicula europæa**, *Linn. Sp. Pl.* ed. 1, p. 235; *DC. Prodr.* iv. p. 84; *Boiss. Fl. Orient.* ii. p. 832; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 670.

Sanicula elata, *Ham.*; *Don, Prodr. Fl. Nep.* p. 183; *Wight, Ill. Pl. Ind. Or.* t. 117. fig. 2, et *Ic. Ind. Bot.* tt. 334, 1004; *Franchet, Pl. David.* p. 137 (var. acaulis).

Sanicula chinensis, *Bunge, Enum. Pl. Chin. Bor.* p. 32; *Walp. Rep.* ii. p. 387; *Hance, Journ. Bot.* 1874, p. 260.

CHIHLI: near Peking (*Bretschneider* !), Jehol (*David* ex *Franchet*); KIANGSI: Kiukiang (*Moellendorff*); HUPEH: Nanto and mountains to the northward (*A. Henry* ?); COREAN ARCHIPELAGO (*Oldham*, 294 !). Mus. Brit.; Herb. Kew.

Widely spread in Europe, Asia, and Africa; restricted to the mountains in the warmer parts.

2. **Sanicula lamelligera**, *Hance in Journ. Bot.* 1878, p. 11, et 1879, p. 11.

HUPEH: Ichang (*A. Henry* !); KWANGTUNG: along the North river (*Bullock*, hb. *Hance*, 19942 !). Mus. Brit.; Herb. Kew.

Dr. Henry's specimens are too young to enable us to identify them with absolute certainty, but the peculiar lamelliform appendages of the fruit of this species are discernible.

3. **Sanicula orthacantha**, *S. Moore in Journ. Bot.* 1875, p. 227.

KIANGSI: Kiukiang (*Shearer* !); HUPEH: Ichang Gorge (*Maries* !), Patung district (*A. Henry* !). Herb. Kew.

The Hupeh specimens we have referred to this species are all very young.

4. **Sanicula rubriflora**, *F. Schmidt in Maxim. Prim. Fl. Amur.* p. 123; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382.

SHINGKING: Kwandien (*Ross*!), between Tungcheshien and Maorshan, Yoloo river (*James*!). Herb. Kew.

Amur and Mandshuria.

5. **Sanicula tuberculata**, *Maxim. in Mél. Biol.* vi. p. 204.

COREA: Port Chusan (*Wilford*, 906!). Herb. Kew.

1. **Bupleurum falcatum**, *Linn. Sp. Pl.* ed. 1, p. 237; *DC. Prodr.* iv. p. 132; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 676; *Franchet, Pl. David.* p. 137, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 221 (var. scorzoneræfolium); *Hance in Journ. Bot.* 1883, p. 321; *Jacq. Fl. Austr.* t. 158.

Bupleurum chinense, *DC. Prodr.* iv. p. 128.

Bupleurum scorzoneræfolium, *Willd. Enum. Pl. Hort. Berol.* p. 300; *DC. Prodr.* iv. p. 132; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 22; *Debeaux, Fl. Tchef.* p. 66.

NORTH CHINA: common in CHIHLI, SHINGKING, SHANTUNG, and COREA (*Staunton*! *David*! *Ross*! *Webster*! *Maingay*! *Carles*! and others); HUPEH (*A. Henry*!); FOKIEN: Chiuchew (*Fortune*, 28!). Mus. Brit.; Herb. Kew.

South of Europe and Asia Minor to Japan.

2. **Bupleurum octoradiatum**, *Bunge, Enum. Pl. Chin. Bor.* p. 32; *Walp. Rep.* ii. p. 397; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472.

CHIHLI: Paushan mountains (ex *Bunge*).

3. **Bupleurum pekinense**, *Franchet in litt.*

Bupleurum chinense, *Franchet, Pl. David.* p. 138, non *DC.*

CHIHLI: Peking (*David*, 454, ex *Franchet*).

Mongolia.

4. **Bupleurum Vanheurckii**, *Müll. Arg. in Van Heurck et Müll. Arg. Obs. Bot.* fasc. ii. p. 207.

SHANTUNG: Chefoo (hb. *Van Heurck*).

Maximowicz refers all the Chinese specimens of *Bupleurum*

known to him to *B. falcatum*, and we can recognize only one species, except perhaps an immature specimen from Long Reach, Corean Archipelago (*Oldham*, 303 A).

1. **Apium cicutæfolium**, *Benth. et Hook. f. Gen. Pl.* i. p. 888.

Sium cicutæfolium, *Gmel. Syst. Nat.* ii. p. 482; *Ledeb. Fl. Ross.* ii. p. 260; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472; *DC. Prodr.* iv. p. 126.

Falcaria dahurica, *DC. Prodr.* iv. p. 110.

Sium lineare, *Michx. Fl. Bor.-Am.* i. p. 167; *A. Gray, Man. Bot. Northern U.S.* ed. 5, p. 196.

CHIHLI: near Peking (*Bushell! Bretschneider!*). Mus. Brit.; Herb. Kew.

Dahuria and Siberia eastward, and in eastern North America. We have followed the 'Genera Plantarum' here; but in habit and foliage this plant more closely resembles *Sium latifolium*, &c., than any *Apium*.

2. **Apium graveolens**, *Linn. Sp. Pl.* ed. 1, p. 264; *DC. Prodr.* iv. p. 101; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 220; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 679.

SHANTUNG: Chefoo, subspontaneous (*Fauvel* ex *Franchet*).

This has a wide area in Europe, North Africa, and Western Asia to North-west India; but we know of no locality for it in Eastern Asia, except the one named, where it is doubtless a colonist.

1. **Cicuta virosa**, *Linn. Sp. Pl.* ed. 1, p. 255; *DC. Prodr.* iv. p. 99; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 679; *Franchet, Pl. David.* p. 138.

Cicutaria aquatica, *Lam. Illustr.* t. 195.

CHIHLI: near Peking (*Bretschneider!*), Jehol (*David*, 1914!); SHINGKING: between Moukden and Tungcheshien (*James!*). Mus. Brit.; Herb. Kew.

Europe, temperate Asia, and widely diffused in North America.

[*Petroselinum sativum*, Hoffm., is recorded by Bunge as a cultivated plant at Peking.]

1. **Carum buriaticum**, *Turcz. Fl. Baical.-Dahur.* i. p. 472; *Ledeb. Fl. Ross.* ii. p. 249; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472.

CHIHLI: near Peking (*Bretschneider*, hb. *Forbes*! *Williams*, hb. *Hance*!). Mus. Brit.

Central Siberia.

[*Sium Sisarum*, Linn., recorded by Loureiro as cultivated in China, has not been observed by recent botanists, according to Bretschneider (Early Res. p. 154); and the Chinese name cited by Loureiro is applied in Japan to *Œnanthe stolonifera*, DC. *Sium græcum*, Linn. (Lour. Fl. Cochinch. p. 179), is an altogether obscure plant.]

1. **Nothosmyrnium japonicum**, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 58; *Franchet, Pl. David.* p. 140.

KIANGSI: Kiukiang (*David* ex *Franchet*).

Japan.

1. **Pimpinella diversifolia**, *DC. Prodr.* iv. p. 122; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 688.

Pimpinella sinica, *Hance in Journ. Bot.* 1868, p. 113; *Maxim. in Mél. Biol.* ix. p. 185.

Platyraphe japonica, *Miq. in Mus. Bot. Lugd.-Bat.* iii. p. 56?

HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 85, 1057, 2363, 2923!); KWANGTUNG: Tsingyune, North river (*Sampson & Hance*, 13739!), White Cloud hill (*Sampson*, 1013!), Lofaushan (*Ford*!). Mus. Brit.; Herb. Kew.

Japan, and common on the mountains of North India.

[In the Kew Herbarium are several flowering specimens of Umbelliferæ, probably of the genus *Pimpinella*. They include Corean Archipelago, *Oldham*, 307; Patung, *A. Henry*, 2516; the same, 3155; the same, 2419; Lofaushan, *Ford*, 118; and Kiukiang, *Shearer*, 20.]

1. **Cryptotænia canadensis**, *DC. Prodr.* iv. p. 119; *Hance in Journ. Bot.* 1865, p. 340, et 1870, p. 276; *Macoun, Cat. Canad. Pl.* i. p. 182.

Cryptotænia japonica, *Hassk. Retzia*, i. p. 113.

KIANGSI: Kiukiang (*Shearer*!); HUPEH: Patung district and Nanto and mountains to the northward (*A. Henry*!); KWANGTUNG: Sichushan (*Parry*, hb. *Hance*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan and eastern North America, extending as far westward as Saskatchewan.

1. **Conopodium Cyminum,** *Benth. et Hook. f. Gen. Pl.* i. p. 896; *Franchet, Pl. David.* p. 140.

Sphallerocarpus Cyminum, *Bess. in DC. Prodr.* iv. p. 230, et *Mém. Omb.* p. 60, t. 2; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 23.

CHIHLI: near Peking (*Bretschneider*!), Jehol (*David*, 1948!); SHINGKING: Hingjing (*Ross*?). Herb. Kew.

Dahuria and Mandshuria to Sachalin.

[*Osmorrhiza longistylis*, DC., found in the Himalayas, Mandshuria, and Japan, and widely spread in North America, may be looked for within our limits.]

1. **Anthriscus nemorosa,** *Spreng. Umb. Prodr.* p. 27; *DC. Prodr.* iv. p. 223; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 692.

SHINGKING: between Tungcheshien and Maorshan, Yaloo river (*James*!). Herb. Kew.

Europe and temperate Asia.

This and the next are perhaps hardly distinguishable as species; but James's specimen has the setose fruit ascribed to *A. nemorosa.*

2. **Anthriscus sylvestris,** *Hoffm. Umb.* pp. 40 et 46, t. 1; *DC. Prodr.* iv. p. 223; *Franch. et Sav. Enum. Pl. Jap.* i. p. 183.

Anthriscus nemorosa, *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 382, vix *Spreng.*

SHINGKING: Jaoling (*Ross*!); KIANGSU: Fengwangshan (hb. *Forbes*!). Herb. Kew.

Europe, North Africa, and North Asia to Japan.

[*Myrrhis chærophylloides*, Hance (Journ. Bot. 1878, p. 108), from Chinkiang, is apparently an *Anthriscus*, and very near *A. sylvestris*, but the material is scanty and quite young.]

1. **Seseli Libanotis,** *G. D. J. Koch in Nov. Act. Nat. Cur.* xii. 1. p. 111; *Franchet, Pl. David.* p. 140, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 221 (var. sibiricum); *Rchb. Ic. Fl. Germ.* t. 1915.

Seseli sibiricum, *Boiss. Fl. Orient.* ii. p. 967; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 693; *Rchb. Ic. Fl. Germ.* t. 1916.

Libanotis vulgaris, *DC. Prodr.* iv. p. 150, cum var. sibirica.

Libanotis sibirica, *Koch, Syn. Fl. Germ.* ed. 2, p. 326; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472.

CHIHLI: Peking (ex *Maximowicz*), Jehol (*David*, 2060, ex *Franchet*); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*).

Europe and temperate Asia.

[*Fœniculum vulgare*, Gærtn., is commonly cultivated in China, and probably colonized in some parts.]

1. **Phellopterus littoralis**, *Benth. in Benth. et Hook. f. Gen. Pl.* i. p. 905; *F. Schmidt in Mém. Acad. Sc. Pétersb.* xii. 2. p. 138; *Hance in Journ. Bot.* 1878, p. 11; *Debeaux, Fl. Tchef.* p. 68; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 221.

Cymopterus littoralis, *A. Gr. in Mem. Amer. Acad.* vi. p. 391.

Glehnia littoralis, *F. Schmidt ex Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 61.

SHANTUNG: Chefoo (*Hancock*!); KWANGTUNG: Pakhoi (*Playfair*!); COREA: Port Chusan (*Wilford*, 913!), Chemulpo (*Carles*!); LUCHU ARCHIPELAGO (*Wright*!). Herb. Kew.

Sachalin and Japan.

1. **Œnanthe benghalensis**, *Benth. et Hook. f. Gen. Pl.* i. p. 906; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 696.

Seseli bengalensis, *Roxb. Fl. Ind.* ii. p. 94.

Dasyloma benghalense *et* D. glaucum, *DC. Prodr.* iv. p. 140; *Wight, Ic. Pl. Ind. Or.* t. 568; *Hook. et Arn. Bot. Beech. Voy.* p. 264.

FORMOSA: Tamsui (*Oldham*, 148!); KWANGTUNG: Pakhoi (*Playfair*!); LUCHU ARCHIPELAGO (*Beechey*!). Mus. Brit.; Herb. Kew.

India, from Kumaon eastward.

2. **Œnanthe stolonifera**, *DC. Prodr.* iv. p. 138; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 696; *Wight, Ic. Pl. Ind. Or.* t. 571; *Hance in Journ. Linn. Soc.* xiii. p. 81; *in Journ Bot.* 1878, p. 228; *Franchet, Pl. David.* p. 140, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 221.

Dasyloma japonicum *et* D. subpinnatum, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 59; *Hance in Journ. Linn. Soc.* xiii. p. 81, et *in Journ. Bot.* 1870, p. 276.

CHIHLI: Peking (*Bretschneider*!); KIANGSU: Shanghai (*Maingay*!); CHEKIANG: Ningpo (*Oldham*! *Faber*!); FORMOSA: Tamsui (*Oldham*, 143, 146!); HUPEH: Nanto and mountains to

the northward (*A. Henry* !); KWANGTUNG: borders of rice-fields (*Hance*, 11521 !). Mus. Brit.; Herb. Kew.

India, from Kashmir eastward, and in Java and Japan.

3. **Œnanthe Thomsoni**, *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 697.

HUPEH: Patung district (*A. Henry*, 1709 !). Herb. Kew.

Sikkim, Bhotan, and Khasia mountains.

4. **Œnanthe**, sp.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 1663 !). Herb. Kew.

1. **Siler divaricatum**, *Benth. et Hook. f. Gen. Pl.* i. p. 909; *Franch. et Sav. Enum. Pl. Jap.* i. p. 186; *Franchet, Pl. David.* p. 141, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 221.

Stenocœlium divaricatum, *Turcz. Cat. Pl. Baikal.* n. 529, et *Fl. Baik.-Dahur.* i. p. 493; *Ledeb. Fl. Ross.* ii. p. 332; *Debeaux, Fl. Tchef.* p. 66.

CHIHLI: Peking (*Bretschneider* !); SHINGKING (*Ross* !); SHANTUNG (*Maingay* !), Chefoo (*Stuhlmann* !). Mus. Brit.; Herb. Kew.

Dahuria to Japan.

1. **Ligusticum acutilobum**, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* ii. p. 203; *Franch. et Sav. Enum. Pl. Jap.* i. p. 186; *Maxim. in Mél. Biol.* ix. p. 247.

Sium triternatum, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 57.

Apium ternatum, *Sieb. Syn. Pl. Œcon.* n. 246, ex *Maxim.*

FORMOSA: general on the sea-coast near Kelung (*Hancock* !); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 300 !). Mus. Brit.; Herb. Kew.

Japan.

An edible and medicinal herb, which appears to take the place of *Crithmum* in Japan, according to Maximowicz. The specimens from Port Hamilton and Formosa have broader leaflets and less conspicuous bracteoles than the Japanese, but they exhibit no other obvious differences.

*Ligusticum scoticum* is common on the coast of Japan and Mandshuria, and may be expected to occur within our limits.

1. **Selinum Monnieri**, *Linn. Amœn. Acad.* iv. p. 269, et *Sp. Pl.* ed. 2, p. 351; *Jacq. Hort. Vindob.* t. 62; *Hance in Journ. Linn. Soc.* xiii. p. 81.

Cnidium Monnieri, *Cuss. in Mém. Soc. Med. Par.* 1782, ex *DC. Prodr.* iv. p. 152; *Ledeb. Fl. Ross.* ii. p. 283; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472.

Athamanta chinensis, *Linn. Sp. Pl.* ed. 1, p. 245; *Lour. Fl. Cochinch.* p. 178; *Bretschn. Early Res.* p. 154.

Seseli daucifolium, *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 693, partim.

Cicuta sinensis, *Roem. Collectan. Bot.* p. 135.

CHINA: without locality (*Macartney*!); CHIHLI (*Mœllendorff*, hb. *Hance*, 18792!), Peking (*Bretschneider*!); KIANGSU: Shanghai (*Maingay*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN (*de Gris*!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Macao (*Callêry*!); West river (*Sampson*, hb. *Hance*, 12154! *Ford*!). Mus. Brit.; Herb. Kew.

South-eastern Europe and Dahuria.

Mr. Clarke confused Chinese flowering specimens of this plant with the Indian *Seseli daucifolium*.

1. **Pleurospermum austriacum,** *Hoffm. Umb. in Præf.* p. 8, tab. tit. figs. 6, 7, 8, 16, 22, 23; *DC. Prodr.* iv. p. 244; *Ledeb. Fl. Ross.* ii. p. 360.

Ligusticum austriacum, *Linn. Sp. Pl.* ed. 1, p. 250; *Jacq. Fl. Austr.* t. 151.

SHINGKING: between Fungcheshien and Maorshan, Yaloo river (*James*!). Herb. Kew.

Central Europe through Central Asia to Japan.

*Pleurospermum uralense* and *P. kamtschaticum* are not, in our opinion, specifically separable from this; and Ledebour, *loc. cit.*, questions the propriety of retaining them as independent species.

2. **Pleurospermum ?** (*P. dentato* simili); foliis bipinnatis glabrescentibus, foliolis ovatis serratis conspicue venosis, bracteis bracteolisque latis insigniter caudatis.

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

1. **Angelica anomala,** *Lallem. in Ind. Sem. Hort. Petrop.* ix. p. 57; *Franch. et Sav. Enum. Pl. Jap.* i. p. 187; *Franchet, Pl. David.* p. 141.

Angelica montana, *Schleich.*, β. angustifolia, *Ledeb. Fl. Ross.* ii. p. 295.

CHIHLI: Jehol (*David*, 2047, ex *Franchet*); KIANGSI: Kiukiang (*Shearer* ?). Herb. Kew.

Mandshuria.

2. **Angelica citriodora,** *Hance in Journ. Bot.* 1871, p. 131; *Maxim in Mél. Biol.* ix. p. 258.

KWANGTUNG: White Cloud hills (*Sampson*, hb. *Hance*, 1606 !), Pakwan (*Hance*, 16393 !). Mus. Brit.; Herb. Kew.

3. **Angelica gracilis,** *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 222.

SHANTUNG: Chefoo (*Fauvel* ex *Franchet*).

4. **Angelica grosseserrata,** *Maxim. in Mél. Biol.* ix. p. 253.

Gomphopetalum, sp. n., *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472.

CHIHLI: mountains near Peking (*Tatarinow* ex *Maximowicz*).

5. **Angelica kiusiana,** *Maxim. in Mél. Biol.* ix. p. 14.

COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 303 !). Herb. Kew.

Japan.

6. **Angelica lævigata,** *Franchet, Pl. David.* p. 143, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 221.

Archangelica, *Benth. et Hook. Gen. Plant.* i. p. 917.

Czernaevia lævigata, *Turcz. Fl. Baik.-Dahur.* i. p. 499; *Ledeb. Fl. Ross.* ii. p. 293; *Debeaux, Fl. Tchef.* p. 67.

Conioselinum Czernaevia, *Fisch. et Mey. Ind. Sem. Hort. Petrop.* i. p. 33; *Ann. Sc. Nat.* 2$^{me}$ série, v. p. 188.

CHIHLI: Jehol (*David* ex *Franchet*); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*; *Debeaux*).

Dahuria to Mandshuria and Japan.

7. **Angelica Miqueliana,** *Maxim. in Mél. Biol.* ix. p. 255, et *in Bull. Soc. Nat. Mosc.* 1879, p. 23; *Franchet, Pl. David.* p. 142.

CHIHLI: near Peking (*Bretschneider* !); Jehol (*David*, 2144 !). Herb. Kew.

Japan.

8. **Angelica mongolica,** *Franchet, Pl. David.* p. 141.

CHIHLI: Jehol (*David*, 2180, ex *Franchet*).

9. **Angelica,** sp.; glabra, foliis caulinis superioribus longissime vaginatis pinnatis vel ternatisectis, foliolis pollicaribus ad sesquipollicaribus lanceolatis acutis integris vel paucidentatis.

SHINGKING: Peiling (*Webster* !). Herb. Kew.

10. **Angelica,** sp. (*viridifloræ* et *glaucæ* affinis); glaberrima, foliis caulinis superioribus trifoliolatis inferioribus longissime

petiolatis (petiolo tereti pedali) ternatim bipinnatis, foliolis vel segmentis ovatis acutis remote grosseserratis subtus pallidis venis eleganter reticulatis, umbellis amplis laxis, radiis inæqualibus.

HUPEH: Ichang and immediate neighbourhood and Nanto and mountains to the northward (*A. Henry*, 1546, 1906, 2006!). Herb. Kew.

1. **Ferula marathrophylla**, *Walp. in Nov. Act. Nat. Cur.* xix. *Suppl.* 1. p. 347, et *Rep.* v. p. 877.

KWANGTUNG: Cape Lyngmoon (*Meyen* ex *Walpers*).

1. **Peucedanum decursivum**, *Maxim. in Mél. Biol.* xii. p. 472.

Angelica decursiva, *Franch. et Sav. Enum. Pl. Jap.* i. p. 187; *Franchet, Pl. David.* p. 142; *Hance in Journ. Bot.* 1883, p. 321.

Porphyroscias decursiva, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 62.

KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 147!; *Gregory*!), Kelung (*Ford*!); HUPEH: Ichang, Patung, and Nanto (*A. Henry*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Japan.

[*Peucedanum graveolens*, Benth. et Hook. f. (syn. *Anethum graveolens*, Linn.), is cultivated and colonized in North China.]

2. **Peucedanum rigidum**, *Bunge, Enum. Pl. Chin. Bor.* p. 32; *Walp. Rep.* ii. p. 409.

CHIHLI: sandy places by the river Chingche not far from Peking (*Bunge*! *Bretschneider*!). Herb. Kew.

3. **Peucedanum terebinthaceum**, *Fisch. in Turcz. Fl. Baic.-Dahur.* i. p. 502; *Ledeb. Fl. Ross.* ii. p. 314; *Franchet, Pl. David.* p. 143.

CHIHLI: Jehol (*David*, hb. *Hance*, 14516!), Peking (*Bushell*!); SHINGKING (*Ross*!); HUPEH: Ichang and Patung (*A. Henry*!); COREAN ARCHIPELAGO: Green Island (*Oldham*, 304?). Mus. Brit.; Herb. Kew.

Dahuria; Mandshuria.

4. **Peucedanum**, sp.; foliis glabris subtus glaucis ternatim bipinnatis, segmentis ultimis trilobatis, lobis latis pauci-setuloso-dentatis, carpellis tomentosis vittis numerosis.

CHIHLI: Peking mountains (*Bretschneider*, 164!). Herb. Kew.

We hesitate giving this distinct plant a name, because, although we have failed to identify it with any described species, we think it has probably been published.

5. **Peucedanum,** sp. ?

KWANGTUNG: cultivated in the Hongkong Botanic Garden; plant collected on the banks of the North river, Canton (*Ford*, 497 !). Herb. Kew.

1. **Heracleum lanatum,** *Michx. Fl. Bor. Am.* i. p. 166; *A. Gray, in Mem. Amer. Acad.* n. s. vi. p. 391; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 23.

Heracleum dissectum, *Ledeb. Fl. Alt.* i. p. 301, et *Fl. Ross.* ii. p. 323, et *Ic. Pl. Fl. Ross.* t. 304.

Heracleum Moellendorffii, *Hance in Journ. Bot.* 1878, p. 12.

Heracleum barbatum, *Ledeb. Fl. Alt.* i. p. 300, et *Fl. Ross.* p. 322; *Regel et Til. in Nouv. Mém. Soc. Nat. Mosc.* xi. 1859, p. 98.

Heracleum dulce, *Fisch. in Ind. Sem. Hort. Petrop.* ix. p. 23, ex *Maxim.*

SHINGKING: Moukden to the Yaloo river (*James* !); HUPEH: Patung district (*A. Henry* !). Mus. Brit.; Herb. Kew.

Siberia to Japan and in eastern North America.

The Patung specimens may prove specifically different. We have followed Maximowicz and Regel in the synonymy of this species.

1. **Coriandrum sativum,** *Linn. Sp. Pl.* ed. 1, p. 256; *DC. Prodr.* iv. p. 250; *Lour. Fl. Cochinch.* p. 180; *Benth. Fl. Hongk.* p. 135; *Franchet, Pl. David.* p. 145; *Bretschn. Early Res.* p. 154; *Boiss. Fl. Or.* ii. p. 920; *Sibth. Ic. Fl. Græc.* t. 283.

Commonly cultivated in China, and not uncommonly met with in a wild state, though probably not indigenous. Mus. Brit.; Herb. Kew.

Mediteranean region.

1. **Daucus Carota,** *Linn. Sp. Pl.* ed. 1, p. 242; *DC. Prodr.* iv. p. 211; *Lour. Fl. Cochinch.* p. 178; *Bretschn. Early Res.* p. 154; *Debeaux, Fl. Shangh.* p. 32; *Hance in Journ. Bot.* 1882, p. 6; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 222; *Boiss. Fl. Or.* ii. p. 1076.

Cultivated throughout China, and perhaps also indigenous, as it appears to be from Western Europe and North Africa to North

India. Colonized in many other countries. Mus. Brit.; Herb. Kew.

1. **Torilis Anthriscus,** *Gmel. Fl. Bad.* i. p. 613; *DC. Prodr.* iv. p. 218.

Caucalis Anthriscus, *Scop. Fl. Carniol.*; *D. Don, Prodr. Fl. Nep.* p. 183; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 718.

Torilis japonica, *DC. Prodr.* iv. p. 219; *Hook. et Arn. Bot. Beech. Voy.* pp. 189, 264; *Franchet, Pl. David.* p. 145.

Caucalis japonica, *Houtt. Pfl. Syst.* viii. p. 42, t. 45. f. 1; *Franch. et Sav. Enum. Pl. Jap.* i. p. 190.

Caucalis orientalis, *Lour. Fl. Cochinch.* p. 177?

Torilis scabra, *DC. Prodr.* iv. p. 219.

Chærophyllum scabrum, *Thunb. Fl. Jap.* p. 119.

Torilis prætermissa, *Hance in Ann. Sc. Nat.* 5me série, v. p. 214; *Franchet, Pl. David.* p. 145.

KIANGSU: Shanghai (*Maingay*! *Perry*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 137, 142!); KWANGTUNG: near Canton (*Hance*, 11399!); COREAN ARCHIPELAGO (*Oldham*, 308!); LUCHU ARCHIPELAGO (*Wright*! *Beechey*!). Mus. Brit.; Herb. Kew.

Europe and North Africa, and across Asia to Japan.

**Umbellifera** dubia *Athamantæ* affinis; folia glabra, tripinnatisecta, segmentis ultimis linearibus acutis, bracteis bracteolisque angustis acutis, carpellis 5-costatis setosis dentibus calycinis magnis persistentibus coronatis, vittis parvis in valleculis solitariis?, carpophoro nullo, stylis valde elongatis rectis induratis persistentibus.

SHANTUNG (*Maingay*, 49!). Herb. Kew.

Of this remarkably distinct plant the material is insufficient to determine its exact affinity.

[There remain in the Kew Herbarium two undetermined Umbelliferæ from the Patung district collected by Dr. Henry (1742 and 2389), and 306 of Oldham's Japanese and Corean collection.]

## 65. ARALIACEÆ.

1. **Aralia dasyphylla,** *Miq. Fl. Ind. Bat.* i. p. 751, et *in Ann. Mus. Bot. Lugd.-Bat.* i. p. 9.

Aralia chinensis, *Blume, Bijdr.* p. 879, haud *Linn.*, sec. *Miq.*

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

Malay islands.

Readily distinguished from the polymorphous *A. spinosa* by its capitate flowers.

2. **Aralia quinquefolia,** *A. Gr. in Mem. Amer. Acad. Sc.* n. s. vi. p. 391.

Panax quinquefolium, *Linn. Sp. Pl.* ed. 1, p. 1058; *DC. Prodr.* iv. p. 252; *Seem. Journ. Bot.* 1868, p. 54; *Bot. Mag.* t. 1333; *Regel et Maack in Reg. Gartenfl.* 1862, p. 314, t. 375 (var. Ginseng); *Sieb. Verhandl. Bot. Genoot.* xii. (var. coreense).

Panax Ginseng, *C. A. Mey. in Bull. Acad. Sc. St. Pétersb.* i. p. 340; *Walp. Rep.* v. p. 924; *Seem. Journ. Bot.* 1864, p. 320, et 1868, p. 54.

SHINGKING or COREA (*James* !). Herb. Kew.

Mandshuria, Japan, and eastern North America, from Canada to the mountains of Georgia.

[*Aralia palmata*, Lour. (Fl. Cochinch. p. 187), is an obscure plant, doubtfully referred by Seemann to the Indian *Brassaiopsis Hainla*.]

3. **Aralia spinosa,** *Linn. Sp. Pl.* ed. 1, p. 273; *DC. Prodr.* iv. p. 259; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 7; *Franch. et Sav. Enum. Pl. Jap.* i. p. 191.

Aralia chinensis, *Linn. Sp. Pl.* ed. 1, p. 273; *DC. Prodr.* iv. p. 259; *Benth. Fl. Hongk.* p. 135; *Seem. Journ. Bot.* 1868, p. 133; *Henriques in Bol. Soc. Brot.* iii. p. 149.

Leea spinosa, *Spreng. Syst. Veg.* i. p. 670.

Aralia canescens, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* i. p. 94.

Aralia Planchoniana, *Hance in Journ. Bot.* 1866, p. 172.

Aralia Decaisneana, *Hance in Ann. Sc. Nat.* 5me série, x. p. 215.

Dimorphanthus mandshuricus, *Rupr. et Maxim. in Bull. Acad. Sc. St. Pétersb.* xv. (1856), p. 134, et *in Maxim. Prim. Fl. Amur.* p. 133.

Aralia mandschurica, *Seem. Journ. Bot.* 1868, p. 134.

Dimorphanthus elatus, *Miq. Comm. Phytogr.* p. 95, t. 12; *Walp. Rep.* ii. p. 430.

Aralia elata, *Seem. Journ. Bot.* 1868, p. 134.

Aralia hypoleuca, *Presl, Epimel.* p. 250; *Walp. Ann.* ii. p. 724.

SHINGKING: Fungshan (*Ross* !); CHEKIANG: Ningpo (*Faber* !); HUPEH: Patung district, and Nanto and mountains to the northward (*A. Henry* !); FORMOSA: Tamsui (*Oldham*, 201 !); SZECHUEN: Chungching (*Bourne* !); KWANGTUNG: Macao (*Hance*, 12693 ! *Gaudichaud* !). Mus. Brit.; Herb. Kew.

Mandshuria, Japan, Philippines, and eastern North America from Canada to Texas.

This is an exceedingly variable plant both in its American and Asiatic areas; and Miquel included all of the above synonymy except Hance's names and the Philippine *Aralia hypoleuca*.

4. **Aralia**, sp.?

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

Only young foliage and young flowers of a member of this order quite distinct from anything else we have seen from China.

[*Panax fallax*, Miq. (Journ. de Bot. Néerl. i. p. 118), is an obscure imperfectly described plant, perhaps not of this natural order.]

1. **Acanthopanax aculeatum**, *Seem. Journ. Bot.* 1867, p. 238, et *Revis. Heder.* p. 86; *Hance in Journ. Linn. Soc.* xiii. p. 105; *Franchet, Pl. David.* p. 146; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 726.

Panax aculeatum, *Ait. Hort. Kew.* ed. 1, iii. p. 448; *DC. Prodr.* iv. p. 252; *Jacq. Ic. Pl. Rar.* t. 634; *Seem. Bot. Voy. 'Herald,'* p. 38.

Zanthoxylum trifoliatum, *Linn. Sp. Pl.* ed. 1, p. 270.

Plectronia chinensis, *Lour. Fl. Cochinch.* p. 162.

Panax Loureirianum, *DC. Prodr.* iv. p. 252.

Aralia trifoliata, *Meyen, Reise*, ii. p. 332, sec. *Walpers in Nov. Act. Nat. Cur.* xix. *Suppl.* i. p. 348; *C. Koch, Wochenschr.* i. (1859), p. 366.

Acanthopanax sepium, *Seem. Revis. Heder.* p. 86.

CHINA: without locality (*Millett*! *Staunton*! *Macartney*! *Bradley*! and others); KIANGSI: Kiukiang (*David*, 1975, ex *Franchet*); FOKIEN: Amoy (*Hance*! *Swinhoe*!); FORMOSA (*Oldham*, 300!); HUPEH: Ichang and Patung districts (*A. Henry*! 186, 1011, 1092!); KWANGTUNG: Macao, &c. (*Calléry*! *Seemann*!); HONGKONG (*Ford*!). Mus. Brit.; Herb. Kew.

Eastern India and Japan.

The Chinese and Japanese specimens referred here are almost invariably trifoliolate; but the Indian are often quinquefoliolate as in *A. spinosum*, which is probably not specifically different.

2. **Acanthopanax divaricatum**, *Seem. in Journ. Bot.* 1867, p. 239, et *Revis. Heder.* p. 87; *Marchal in Comptes-rendus Soc. Bot. Belg.* xx. 2. (1881), p. 82.

Panax divaricatum, *Sieb. et Zucc. Abhandl. Baier. Acad.* iv. ii. p. 200; *Walp. Ann.* i. p. 981.

Kalopanax divaricatum, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 17.

Acanthopanax asperatum, *Franch. et Sav. Enum. Pl. Jap.* i. p. 193; *Franchet, Pl. David.* p. 146 (asperulatum), sec. *Marchal, loc. cit.*

CHIHLI: Jehol (*David* ex *Franchet*).

Also in Japan.

3. **Acanthopanax diversifolium**, *Hemsl.*, n. sp.

*Frutex* 10-pedalis (*Henry*), undique glabra, inermis, ramis fructiferis crassiusculis teretibus rectis cortice nigrescente. *Folia* alterna coriacea, aculeolato-denticulata, subtus pallidiora, subalternatim simplicia et trifoliolata; simplicia ovato-oblonga, acuminata, sæpius breviter petiolata; trifoliolata (unicum bifoliolatum visum) sæpius longissime petiolata (petiolus usque 6 poll. longus, patentissimus); foliola sessilia, subæqualia, ovato-oblonga, 3–4 poll. longa, costa utrinque elevata, venis immersis inconspicuis. *Umbellæ* 5–9-radiatæ, in racemos densos 2–3 pollicares terminales aggregatæ, pedicellis gracilibus fructu paullo longioribus. *Fructus* subdidymus, valde compressus, circiter 3 lineas latus, latior quam longus, stylis brevibus coronatus.

Hupeh: Nanto and mountains to the northward (*A. Henry*, 2969!). Herb. Kew.

This is a very distinct species, remarkable in having simple and trifoliolate leaves intermixed on the flowering branches.

We may here remark that it is very doubtful whether the character of continuous or articulated pedicels is sufficient to separate generically the plants referred to *Panax*, *Acanthopanax*, &c.

4. **Acanthopanax ricinifolium**, *Linn. in Journ. Bot.* 1868, p. 140, et *Revis. Heder.* p. 86; *Hance in Journ. Bot.* 1885, p. 323; *Marchal in Comptes-rendus Soc. Bot. Belg.* xx. 2. (1881), p. 88.

Panax ricinifolium, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* i. p. 91.

Kalopanax ricinifolium, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 16.

Brassaiopsis ricinifolia, *Seem. in Journ. Bot.* 1864, p. 291.

Aralia Maximowiczii, *Van Houtte, Fl. des Serres*, xx. p. 39, t. 2067, sec. *Marchal.*

Shantung: Chefoo (*Carles & Forbes*!); Chekiang: Ningpo (*Faber*!); Kiangsi: Kiukiang (*Shearer*!); Fokien: Amoy (*Fortune*, 9!); Hupeh: Ichang and immediate neighbourhood (*A. Henry*!); Corea: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Japan.

5. **Acanthopanax sessiliflorum**, *Seem. in Journ. Bot.* 1867, p. 239, et *Revis. Heder.* p. 87; *Franchet, Pl. David.* p. 145; *Marchal in Comptes-rendus Soc. Bot. Belg.* xx. 2. (1881), p. 89.

Panax sessiliflorum, *Rupr. et Maxim. in Maxim. Prim. Fl. Amur.* p. 131; *Regel, Gartenfl.* 1862, p. 238, t. 369.

NORTH CHINA (*Fortune* ?, *Fischer* ex *Seemann*), Jehol (*David*, 2055, ex *Franchet*).

Amur and Mandshuria.

6. **Acanthopanax spinosum,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 10; *Seem. Revis. Heder.* p. 86; *Hemsl. in Journ. Bot.* 1876, p. 207 (Acanthopanax?); *Hance in Journ. Bot.* 1880, p. 261; *Marchal in Comptes-rendus Soc. Bot. Belg.* xx. 2. (1881), p. 85.

Panax spinosum, *Linn. f. Suppl.* p. 441.

Aralia pentaphylla, *Thunb. Fl. Jap.* p. 128; *DC. Prodr.* iv. p. 259.

KIANGSU: Fengwangshan (*Forbes*!); CHEKIANG; Ningpo (*Cooper*! *Faber*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and neighbourhood (*A. Henry*!); KWANGTUNG (*Wenyon*!). Mus. Brit; Herb. Kew.

Japan.

1. **Fatsia papyrifera,** *Benth. et Hook. f. Gen. Pl.* i. p. 939.

Aralia papyrifera, *Hook. Kew Journ. Bot.* iv. (1852), p. 53, tt. 1, 2, et *Bot. Mag.* t. 4897; *Fl. des Serres*, tt. 806, 807 et 1201.

Tetrapanax papyrifera, *C. Koch, Wochenschr.* 1859, p. 371; *Otto, Hamb. Gartenz.* 1862, p. 61; *Seem. Revis. Heder.* p. 88.

FORMOSA (*Bowring*! *Oldham*, 198! *Perry*!); HUPEH: Patung district (*A. Henry*!). Mus. Brit.; Herb. Kew.

Dr. Henry does not state whether his specimen was from a wild or cultivated plant; but as he usually, if not always, labels cultivated plants as such, it may be assumed that the Rice-Paper plant is really wild in China proper, though, so far as we are aware, it was not previously known to be wild except in Formosa.

1. **Helwingia rusciflora,** *Willd. Sp. Pl.* iv. p. 716; *Sieb. et Zucc. Fl. Jap.* i. p. 164, t. 86.

Helwingia japonica, *Dietr.* ex *Steud. Nomencl. Bot.*; *DC. Prodr.* xvi. 2. p. 680; *Franch. et Sav. Enum. Pl.* i. p. 195.

Osyris japonica, *Thunb. Fl. Jap.* p. 31, et *Ic. Pl.* dec. iii. t. 1.

HUPEH: Patung district (*A. Henry*!). Mus. Brit.; Herb. Kew.

Japan.

"A shrub ten feet or more high."—*Dr. A. Henry.*

1. **Eleutherococcus Henryi,** *Oliv. in Hook. Ic. Pl.* xviii. t. 1711.

HUPEH: Patung district (*A. Henry*, 2573!). Herb. Kew.

Dr. Henry designates this the red-root kind of "Wu Chia P'i," a drug.

2. **Eleutherococcus leucorrhizus**, *Oliv. in Hook. Ic. Pl.* xviii. sub t. 1711.

HUPEH: Patung district (*A. Henry*, 2580!). Herb. Kew.

"'Wu Chu P'i'; the outside of the root is white. The root-bark is a drug."—*Dr. A. Henry.*

3. **Eleutherococcus senticosus**, *Maxim. Prim. Fl. Amur.* p. 132; *Regel, Gartenfl.* 1863, p. 84, t. 393; *Seem. Revis. Heder.* p. 80; *Franchet, Pl. David.* p. 145.

Hedera senticosa, *Rupr. in Mél. Biol.* 1857, p. 426, ex *Regel.*

CHIHLI: Peking mountains (*Bretschneider*!); SHINGKING; hills near Moukden (*James*!), Kwandien (*Ross*!). Mus. Brit.; Herb. Kew.

Mandshuria to Sachalin.

It is possible that the three foregoing forms are extremes of one very variable species, as the differences are in the more or less numerous sharp bristles and prickles or absence of the same, in the amount of pubescence, in the shape of the fruit, and in the length of the styles.

4. **Eleutherococcus**, sp.?; umbellis racemosis, calycibus dense albo-lanatis.

CHEKIANG: Ningpo (*Faber*!). Herb. Kew.

1. **Heptapleurum octophyllum**, *Hance in Journ. Linn. Soc.* xiii. p. 105.

Aralia octophylla, *Lour. Fl. Cochinch.* p. 187; *DC. Prodr.* iv. p. 258.

Paratropia cantoniensis, *Hook. et Arn. Bot. Beech. Voy.* p. 189; *Walp. Rep.* iv. p. 433; *Benth. Fl. Hongk.* p. 136.

Agalma octophyllum, *Seem. in Journ. Bot.* 1864, p. 298, et *Revis. Heder.* p. 24.

FOKIEN: Foochow (*Swinhoe*!); FORMOSA: Tamsui (*Oldham*, 199!); KWANGTUNG: Macao, &c. (*Macartney*! *Seemann*! *Gaudichaud*! *Millett*! *Tate*!); HONGKONG (*Champion*! *Urquhart*! *Wilford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

1. **Dendropanax japonicum**, *Seem. in Journ. Bot.* 1864, p. 301 et *Revis. Heder.* p. 27; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 733.

Hedera japonica, *Jungh. Nov. Gen. et Sp. Pl.* p. 25; *Walp. Rep.* ii. p. 431.

Textoria japonicum, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 12.

KWANGTUNG: Lofaushan, at 3100 feet (*Ford*!). Herb. Kew.

Khasia mountains in Eastern India, and common in Japan.

2. **Dendropanax parviflorum,** *Benth. Fl. Hongk.* p. 137; *Seem. Revis. Heder.* p. 27; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 733.

Hedera parviflora, *Champ. in Hook. Kew Journ. Bot.* iv. p. 122; *Walp. Ann.* v. p. 84.

HONGKONG (*Champion*!). Herb. Kew.

Mount Ophir, Malacca.

3. **Dendropanax proteum,** *Benth. Fl. Hongk.* p. 136; *Seem. Revis. Heder.* p. 27; *Henriques in Bol. Soc. Brot.* iii. p. 149.

Hedera protea, *Champ. in Hook. Kew Journ. Bot.* iv. p. 122; *Walp. Ann.* v. p. 84.

KWANGTUNG: Green Island, Macao (*Gomes da Silva* ex *Henriques*); HONGKONG (*Champion*! *Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

1. **Heteropanax fragrans,** *Seem. in Journ. Bot.* 1866, p. 297; *Revis. Heder.* p. 73; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 734.

Panax fragrans, *Roxb. Hort. Beng.* p. 21, et *Fl. Ind.* ii. p. 76; *DC. Prodr.* iv. p. 254.

CHINA: without locality (*Millett*!); YUNNAN (*Anderson*!); KWANGTUNG: in a Mandarin's garden, Canton (*Sampson*, hb. *Hance*, 15071!). Mus. Brit.; Herb. Kew.

Bengal and Malayan peninsula and archipelago.

1. **Hedera Helix,** *Linn. Sp. Pl.* ed. 1, p. 202; *DC. Prodr.* iv. p. 261; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 739; *Hance in Journ. Bot.* 1882, p. 6; *Franch. et Sav. Enum. Pl. Jap.* i. p. 194.

Hedera colchica, *Koch, Wochenschrift,* 1859, p. 76; *Seem. in Journ. Bot.* 1864, p. 307.

Hedera rhombea, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* i. p. 94.

The Ivy is apparently not uncommon in the temperate regions of China (*Wright*! *Fortune*! *Bourne*! *A. Henry*! *Maries*!). Mus. Brit.; Herb. Kew.

Western Europe and North Africa eastward to Japan.

## 66. CORNACEÆ.

1. **Alangium Lamarckii**, *Thwaites, Enum. Pl. Ceyl.* p. 133; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 741.

Alangium decapetalum, *Lam.*, *et* A. hexapetalum, *Lam. Encycl.* i. p. 174; *DC. Prodr.* iii. p. 203.

HONGKONG (*Champion*!); HAINAN (*Swinhoe*! *B. C. Henry*! *Hancock*!). Herb. Kew.

Eastern Africa and Tropical Asia to the Philippines.

1. **Marlea begoniæfolia**, *Roxb. Corom. Pl.* t. 283, et *Fl. Ind.* ii. p. 261; *DC. Prodr.* iv. p. 267; *Benth. Fl. Hongk.* p. 138; *Hook. et Arn. Bot. Beech. Voy.* p. 187; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 743; *Bot. Reg.* 1838, t. 61.

Stylidium chinense, *Lour. Fl. Cochinch.* p. 221.

Stylis chinensis, *Poir. in Lam. Encycl. Suppl.* v. p. 260.

Diacæcarpium rotundifolium, *Hassk. in Bonplandia*, vii. p. 172.

KIANGSI: Kiukiang (*Maries*!); FOKIEN: Amoy (*Fortune*, 98!); HUPEH: Ichang and Nanto and neighbourhood (*A. Henry*!); SZECHUEN: Chungching (*Bourne*!); KWANGTUNG (*Millett*!); HONGKONG (*Champion*! *Wright*!). Mus. Brit.; Herb. Kew.

India, Malaya, and Japan.

2. **Marlea platanifolia**, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* i. p. 26; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 159; *Franch. et Sav. Enum. Pl. Jap.* i. p. 195.

Marlea macrophylla, *Sieb. et Zucc. loc. cit.*

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

Japan.

1. **Cornus alba**, *Linn. Mant.* p. 40 (1767); *DC. Prodr.* iv. p. 272; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472; *Ledeb. Fl. Ross.* ii. p. 379.

Cornus tartarica, *Mill. Dict.* ed. 8, n. 7 (1768); *Franchet, Pl. David.* p. 147.

NORTH CHINA: without locality (*Tatarinow*!), Peking (ex *Maximowicz*), Jehol (*David*!). Mus. Brit.; Herb. Kew.

Widely spread in Siberia, eastward to the Amur.

2. **Cornus canadensis**, *Linn. Sp. Pl.* ed. 1, p. 117; *DC. Prodr.* iv. p. 274; *Ledeb. Fl. Ross.* ii. p. 378; *A. Gray in Mem. Amer. Acad. Sc.* n. s. vi. p. 391; *Franch. et Sav. Enum. Pl. Jap.* i. p. 196.

Corea: eastern side (*Perry!*). Herb. Kew.

Mandshuria, Japan, and North America, both eastern and western.

3. **Cornus capitata**, *Wall. in Roxb. Fl. Ind., Carey & Wall. ed.* i. p. 434; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 745; *Wall. Pl. As. Rar.* t. 214.

Benthamia fragifera, *Lindl. Bot. Reg.* t. 1579; *Wight, Ill. Ind. Bot.* t. 122; *Bot. Mag.* t. 4641.

Hupeh: Patung district (*A. Henry*, 208!). Herb. Kew.

North India from Kumaon eastward.

4. **Cornus hongkongensis**, *Hemsl.*, n. sp.

Benthamia japonica, *var.* sinensis, *Benth. in Hook. Kew Journ. Bot.* iv. (1852), p. 165.

*Benthamia japonica*, Benth. Fl. Hongk. p. 138, non Sieb. et Zucc., nec *Cornus Kousa*, Buerg., differt foliis coriaceis, ut videtur persistentibus, oblongis breviter obtuseque acuminatis supra nitidis subtus punctatis, venis primariis lateralibus utrinque 3 conspicuis, involucri bracteis latioribus vix acuminatis.

Hongkong (*Champion!*). Herb. Kew.

This appears quite distinct from the Japanese species with which it has hitherto been associated.

5. **Cornus macrophylla**, *Wall. in Roxb. Fl. Ind., Carey & Wall.* ed. i. p. 433; *DC. Prodr.* iv. p. 272; *Brandis, For. Fl.* p. 252, t. 32; *Clarke in Hook. f. Fl. Brit. Ind.* ii. p. 744.

Cornus brachypoda, *C. A. Mey. in Mém. Acad. Pétersb.* n. s. v. p. 222; *Walp. Ann.* ii. p. 725; *Franch. et Sav. Enum. Pl. Jap.* i. p. 195.

Cornus crispula, *Hance in Journ. Bot.* 1881, p. 216.

Cornus sp. *affinis* C. alternifoliæ, *S. Moore in Journ. Bot.* 1881, p. 292.

Kiangsu: Chinkiang (*Bullock*, hb. *Hance*, 21132!); Fokien: Amoy (*Fortune*, 2!); Hupeh: Patung district (*A. Henry!*): Corea: Port Chusan (*Wilford*, 945!). Mus. Brit.; Herb. Kew.

A common North-India species, extending to Japan.

6. **Cornus officinalis**, *Sieb. et Zucc. Fl. Jap.* i. p. 100, t. 50; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 160; *Franch. et Sav. Enum. Pl. Jap.* i. p. 196.

Corea: Soul (*Carles!*). Herb. Kew.

Japan.

This is closely allied to the European *Cornus mas*, Linn.

7. **Cornus paucinervis**, *Hance in Journ. Bot.* 1881, p. 216.

HUPEH: Ichang, Patung and neighbourhood (*Watters*, hb. *Hance*, 21237! *A. Henry*! 674, 1683! and 218, 471, var. foliis latioribus!); SZECHUEN: Chungking (*Parker*!); KWANGTUNG: West river (*Ford*!); KWANGSI: Liuchaufu (*Mesny*!). Mus. Brit.; Herb. Kew.

1. **Aucuba chinensis**, *Benth. Fl. Hongk.* p. 138.

HONGKONG (*Harland*, hb. *Hance*, 1142!). Mus. Brit.; Herb. Kew.

This very distinct species (or variety of *japonica*) is still imperfectly known, not having been collected, so far as we are aware, by anybody since Harland discovered it.

2. **Aucuba japonica**, *Thunb. Fl. Jap.* p. 64; *DC. Prodr.* iv. p. 274; *Franch. et Sav. Enum. Pl. Jap.* i. p. 197; *Bot. Mag.* tt. 1197, 5512.

COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 469!); LUCHU ARCHIPELAGO (*Wright*!). Herb. Kew.

Japan.

1. **Camptotheca acuminata**, *Decne. in Bull. Soc. Bot. France*, xx. p. 157; *Baill. Hist. Pl.* vi. p. 282; *Franchet, Pl. David.* p. 357.

KIANGSI: Kiukiang (*David*, 867!). Herb. Kew.

This so strongly resembles *Nyssa sessiliflora*, Hook. f. & Thoms., that it might be mistaken for it; yet all the authors cited accord it generic rank, and it is really very distinct. It was at first erroneously recorded as a native of Chinese Tibet.

## 19*. TAMARISCINEÆ †.

1. **Tamarix chinensis**, *Lour. Fl. Cochinch.* p. 182; *DC. Prodr.* iii. p. 96; *Bunge, Enum. Pl. Chin. Bor.* p. 28, et *Tent. Gen. Tam.* p. 46; *Hook. et Arn. Bot. Beech. Voy.* p. 186; *Debeaux, Fl. Tients.* p. 21; *Bretschn. Early Res.* p. 138; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 220; *Franch. et Sav. Enum. Pl. Jap.* i. p. 54.

Tamarix gallica, β. chinensis, *Ehrenb. in Linnæa*, ii. p. 267.

Tamarix indica, *Willd.*; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 471.

† By an oversight this small Order was omitted in its proper place.

CHINA: without locality (*Macartney*! *Bradley*! *Beechey*!); NORTH CHINA (*Bunge*!); KIANGSU: Shanghai, cultivated (*Maingay*!); FOKIEN: Amoy (*Fortune*, 103!); KWANGTUNG: Canton, cultivated (*Hance*, 897!). Mus. Brit.; Herb. Kew.

We have no evidence of this being anywhere wild in China; and Ehrenberg was probably right in treating it as a variety of the widely spread *T. gallica.*

2. **Tamarix juniperina**, *Bunge, Enum. Pl. Chin. Bor.* p. 28, et *Tent. Gen. Tam.* p. 45; *Walp. Rep.* ii. p. 117.

Tamarix chinensis, *Sieb. et Zucc. Fl. Jap.* i. p. 132, t. 71, ex *Bunge.*

CHIHLI: Peking (*Bunge*! *Bretschneider*!). Herb. Kew.

Bunge's specimen of this in the Kew Herbarium looks quite like *T. gallica.*

3. **Tamarix Pallasii**, *Desv. in Ann. Sc. Nat.* iv. p. 349; *Bunge, Tent. Gen. Tam.* p. 51 (var. minutiflora); *Franchet, Pl. David.* p. 54; *Boiss. Fl. Or.* i. p. 773.

CHIHLI: Jehol (*David*, 2063!). Herb. Kew.

Eastern Europe to Afghanistan and Sungaria.

This also is reduced to *T. gallica* by most botanists; yet Boissier follows Bunge in retaining it as an independent species.

1. **Myricaria germanica**, *Desv. in Ann. Sc. Nat.* iv. p. 329; *DC. Prodr.* iii. p. 97; *Ledeb. Fl. Ross.* ii. p. 131; *Dyer in Hook. f. Fl. Brit. Ind.* i. p. 250.

Myricaria bracteata, *Royle, Ill. Bot. Himal.* t. 44.

Myricaria alopecuroides, *Schrenk, Enum. Pl. Nov.* p. 65; *Ledeb. loc. cit.*; *Franchet, Pl. David.* p. 55; *Hance in Journ. Bot.* 1882, p. 258.

HUPEH: Ichang and Nanto (*A. Henry*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz*). Herb. Kew.

Western Europe to the Himalayas and Siberia eastward.

## 67. CAPRIFOLIACEÆ.

1. **Adoxa Moschatellina**, *Linn. Sp. Pl.* ed. 1, p. 367; *DC. Prodr.* iv. p. 252; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 2; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 252; *Franchet, Pl. David.* p. 147.

CHIHLI: Jehol (*David*, 1735, ex *Franchet*); SHINGKING: Fungwangshan, &c. (*Ross*!). Herb. Kew.

North Europe, Asia, and America.

1. **Sambucus Ebulus**, *Linn. Sp. Pl.* ed. 1, p. 269; *DC. Prodr.* iv. p. 322; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 2; *Kurz in Journ. Bot.* 1873, p. 193.

YUNNAN: between Nantyen and Momyen (*Anderson*!). Herb. Kew.

Western Europe, Madeira, North Africa, Asia Minor, and Persia to Kashmir, but not known to exist either in the eastern Himalayas or the country north of India.

The Yunnan specimen is rather hairy, and may possibly be different from *S. Ebulus*, but the fruit is unknown.

[*Sambucus ebuloides*, Desv. (DC. Prodr. iv. p. 323), syn. *Phyteuma bipinnata*, Lour. (Fl. Cochinch. p. 138), is an obscure plant, of which, however, according to Bretschneider (Early Researches, p. 155), there is a specimen in the Paris Herbarium.]

2. **Sambucus javanica**, *Blume, Bijdr.* p. 657; *DC. Prodr.* iv. p. 322; *Miq. Fl. Ind. Bat.* ii. p. 124; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 2.

Sambucus chinensis, *Lindl. in Trans. Hort. Soc. Lond.* vii. p. 297; *DC. Prodr.* iv. p. 322; *Hance in Ann. Sc. Nat.* 5me série, v. p. 217, *in Journ. Bot.* 1869, p. 295, et 1874, p. 260; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 24.

Sambucus Thunbergiana, *Blume ex Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 265; *Franch. et Sav. Enum. Pl. Jap.* i. p. 198; *Franchet, Pl. David.* p. 147.

KIANGSI: Kiukiang (*Shearer*! *Mœllendorff*!); FOKIEN: Amoy (*Fortune*, 97!); FORMOSA (*Oldham*, 202, 203!), Kelung (*Ford*!); HUPEH: Ichang, Patung, and Nanto (*A. Henry*!); SZECHUEN (*Mesny*!); YUNNAN (*Anderson*!); KWANGTUNG: near Canton (*Sampson*, 28! *Hance*, 11341!). Mus. Brit.; Herb. Kew.

Eastern India, Malaya and Java.

[*Sambucus Loureiriana*, DC. (Prodr. iv. p. 323), syn. *S. nigra*, Lour. (Fl. Cochinch. p. 181), *non* Linn., is probably not of this genus.]

3. **Sambucus racemosa**, *Linn. Sp. Pl.* ed. 1, p. 270; *DC. Prodr.* iv. p. 323; *Baker et S. Moore, in Journ. Linn. Soc.* xvii. p. 383; *Franch. et Sav. Enum. Pl. Jap.* i. p. 198; *Franchet, Pl. David.* p. 148, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 222; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 265 (varietates).

Sambucus Sieboldiana, *Blume ex Miq. loc. cit.*

Sambucus nigra, *Thunb. Fl. Jap.* p. 126; *Debeaux, Fl. Shangh.* p. 33, non *Linn.*

Sambucus Williamsii, *Hance in Ann. Sc. Nat.* 5me série, v. p. 18; *Franchet, Pl. David.* p. 148.

CHIHLI: near Peking (*Tatarinow*! *Williams*! *Bushell*! *Bretschneider*!); SHINGKING: Moukden to Kirin (*James*!); KIANGSU: Shanghai (*Carles*!); HUPEH: Nanto and mountains to the northward (*A. Henry*!); COREA: Soul (*Carles*!); COREAN ARCHIPELAGO: Port Hamilton (*Oldham*, 472!). Mus. Brit.; Herb. Kew.

North Europe through Central Asia to Japan and Kamtschatka, and in North America.

A flowering specimen of a *Sambucus* in the Kew Herbarium from the summit of Mount Omei, Szechuen (*Faber*, 648), may be a new species, or possibly a variety of *S. javanica.* The one perfect leaf has nine long, narrow, very acuminate, deeply and sharply serrated leaflets, and the compact inflorescence is pedunculate.

1. **Viburnum (§ Opulus) arborescens,** *Hemsl.*, n. sp.

*Arbor* 30-pedalis, floribus viridibus (*Henry*), ramulis floriferis rigidis foliisque primum stellato-pubescentibus tum glabrescentibus. *Folia* decidua (bene evoluta non visa), floribus coetanea, breviter petiolata, papyracea, oblonga vel ovato-oblonga, 1–1½ poll. longa, utrinque rotundata, minute serrulata, subtus dense stellato-pubescentia, supra cito glabrescentia, venis primariis lateralibus utrinque 4–5 subtus elevatis. *Cymæ* terminales, subsessiles, umbellatæ, floribus paucis exterioribus neutris subcarnosis. *Flores* glabri, fertiles brevissime pedicellati; calycis dentes breves, ovati, obtusissimi; corolla rotata, lobis rotundatis; stylus brevissimus, stigmate magno capitato. *Fructus* deest.

HUPEH: Nanto and mountains to the northward (*A. Henry*, 3810!). Herb. Kew.

Apparently a very distinct species, nearest *V. Hanceanum*, from which it is readily distinguished both by its foliage and its inflorescence.

2. **Viburnum (§ Euviburnum) brachybotryum,** *Hemsl.*, n. sp.

*Frutex* 10-pedalis (*Henry*), sempervirens ?, præter inflorescentiam glaber vel citissimo glabrescens, ramulis brunneis lenti-

cellatis. *Folia* longiuscule petiolata, coriacea, obovata, oblanceolata vel interdum fere oblonga, cum petiolo 3–6 poll. longa; abrupte acuminata, basi cuneata, integra, sursum crenato-dentata, supra nitida venis primariis impressis, subtus pallidiora venis lateralibus primariis utrinque 5–6 costaque elevatis arcuatis. *Cymæ* in paniculas terminales densiusculas circiter 2 poll. longas dispositæ, ramulis pedicellisque parce stellato-puberulis. *Flores* parvi, brevissime pedicellati; calycis lobi ovato-oblongi, obtusissimi; corolla rotata, lobis late ovatis obtusis staminibus longioribus; stylus elongatus, crassissimus. *Fructus* ignotus.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 3324!). Herb. Kew.

Resembling *V. odoratissimum*, but easily distinguished by its very small panicles and sharply-toothed leaves.

3. **Viburnum burejanum**, *Herd. in Add. ad Pl. Radd.* p. 11, *in Bull. Soc. Nat. Mosc.* 1878; *Maxim. in Mél. Biol.* x. p. 653.

Viburnum burejaeticum, *Regel et Herd. in Pl. Radd., Monopet.* p. 7, t. 1. figs. *a–d*; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 383; *Regel, Gartenflora*, 1862, p. 407, t. 384.

Viburnum davuricum, *Maxim. Prim. Fl. Amur.* p. 135, nec *Pall.* ex *Maxim.*

SHINGKING: Changdien (*Ross*!), Yungling, between Moukden and the Yaloo river (*Webster*!). Herb. Kew.

Common in Mandshuria.

4. **Viburnum** (§ **Euviburnum**) **Carlesii**, *Hemsl.*, n. sp.

*Frutex* stellato-tomentosus, ramulis floriferis teretibus graciliusculis glabrescentibus. *Folia* breviter petiolata, papyracea, late ovata vel rotundata, 1–2 poll. longa, mucronulato-serrata, utrinque præcipue subtus tomentosa, subtus pallidiora, venis primariis elevatis in serraturas abeuntibus. *Cymæ* parvæ, umbellatæ, terminales, breviter pedunculatæ. *Flores* undique glabri; calycis dentes ovati, obtusissimi; corolla hypocraterimorpha, tubo stricte cylindrico 5–6 lineas longo, limbi lobis rotundatis leviter undulatis circiter $\frac{1}{5}$ poll. diametro; stamina inclusa; stylus brevissimus, crassus, stigmate capitato. *Fructus* immaturus glaber, valde compressus, sulcatus, calycis limbo aucto coronatus.

COREA: Chemulpo (*Carles*!), West Corea (*Perry*!). Herb. Kew.

In foliage and general appearance this species closely resembles the Indian *V. cotinifolium*, from which it is readily distinguished by the strictly cylindrical tube of the corolla.

5. **Viburnum coriaceum,** *Blume, Bijdr.* p. 656; *DC. Prodr.* iv. p. 329; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 5.

Viburnum cylindricum, *Ham. in D. Don, Prodr. Fl. Nep.* p. 142 *Kurz in Journ. Bot.* 1873, p. 193.

SZECHUEN: Mount Omei, 4000 to 7000 feet (*Faber*!); YUNNAN (*Anderson*!). Herb. Kew.

North India from Kumaon to Khasia, and in Burma and Java.

6. **Viburnum davuricum,** *Pall. Fl. Ross.* ii. p. 30, t. 58; *DC. Prodr.* iv. p. 328; *Regel et Herd. Pl. Radd., Gamopet.* p. 11, t. 1. fig. 2; *Maxim. in Mél. Biol.* x. p. 654; *Franchet, Pl. David.* p. 149.

CHIHLI: mountains west of Peking (*David*, hb. *Hance*, 14704!); SHINGKING: Moukden to Yaloo river (*James*!); KANSUH (*Przewalsky* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Dahuria, Mongolia, and Mandshuria.

7. **Viburnum dilatatum,** *Thunb. Fl. Jap.* p. 124; *DC. Prodr.* iv. p. 329; *A. Gray in Mem. Amer. Acad.* n. s. vi. p. 393; *Lindl. in Journ. Hort. Soc. Lond.* iii. p. 247; *S. Moore in Journ. Bot.* 1875, p. 231; *Maxim. in Mél. Biol.* x. p. 664, *excl.* β. formosanum, *Bot. Mag.* 6215.

Viburnum erosum, *A. Gr. in Perry's Jap. Exped.* ii. p. 313, non *Thunb.*

KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 1598, 2289! *Faber*!). Mus. Brit.; Herb. Kew.

We confess our inability to draw a line between *V. dilatatum*, var. *formosanum*, and *V. erosum*, though Maximowicz states that the present species differs in the absence of stipules, the corolla pilose on the outside, and in the hairs on the leaves being fasciculate, not really stellate. *V. chinense*, Hook. et Arn. (Bot. Beech. Voy. p. 190), doubtfully referred to this species by Maximowicz, is *Premna serratifolia*, Linn.

8. **Viburnum erosum,** *Thunb. Fl. Jap.* p. 124; *DC. Prodr.* iv. p. 327; *Franchet, Pl. David.* p. 148; *Maxim. in Mél. Biol.* x. p. 666; *Hance in Ann. Sc. Nat.* 5me série, v. p. 216 (var. formosanum).

Viburnum dilatatum, β. formosanum, *Maxim. loc. cit.* p. 666.

CHEKIANG: Ningpo (*Everard*!); FOKIEN: Amoy (*Fortune*, 1!); FORMOSA: Tamsui (*Oldham*, 204, 205, 206!), without locality (*Swinhoe*!); COREAN ARCHIPELAGO (*Oldham*, 477!). Mus. Brit.; Herb. Kew.

Japan.

Var.? **ichangense,** *Hemsl.*; foliis cito glabrescentibus, stipulis persistentibus, calyce dense lanato, fructu nigro.

HUPEH: Patung district and Nanto and mountains to the northward (*A. Henry*, 232, 1888, 2841!). Herb. Kew.

9. **Viburnum Fordiæ,** *Hance in Journ. Bot.* 1883, p. 321.

KWANGTUNG: Fingushan, West river (*Ford*, 7!); without locality (*Wenyon*!). Mus. Brit.; Herb. Kew.

10. **Viburnum fragrans,** *Bunge, Enum. Pl. Chin. Bor.* p. 33; *Walp. Rep.* ii. p. 451; *Maxim. in Mél. Biol.* x. p. 659.

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Carles*!); NORTH KANSUH (*Piasezki* ex *Maximowicz*). Mus. Brit.; Herb. Kew.

Maximowicz suggests that this may be the same as the North Indian *V. nervosum*, Don, and we believe he is right; but the fragmentary Chinese specimens we have seen are hardly sufficient to settle the point.

11. **Viburnum furcatum,** *Blume*; *Maxim. in Mél. Biol.* x. p. 657.

Viburnum cordifolium, *Hook. f. et Thoms. in Journ. Linn. Soc.* ii. p. 175, partim.

Viburnum lantanoides, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 265, nec *Michx.* sec. *Hance in Journ. Bot.* 1870, p. 276.

Viburnum plicatum, *A. Gray in Rep. Perry's Exped.* p. 313, nec *Thunb. et excl. synon.*

HUPEH: Patung district (*A. Henry*, 1470!); SZECHUEN: Mount Omei, 8000 to 10,000 feet (*Faber*!). Herb. Kew.

Sachalin and Japan.

Faber's western specimens agree exactly with Japanese collected by Wright and named *V. plicatum* by Gray; but Henry's are too young for absolute certainty of determination.

This species is closely related to *V. lantanoides*, Michx., a native of eastern North America, but, as pointed out by Maximowicz, there is a decided difference in the cross section of the furrow of the putamen, being like the letter **T** in the Chinese, and like the letter **Y** in the N.-American species.

12. **Viburnum glomeratum,** *Maxim. in Mél. Biol.* x. p. 656.

KANSUH: south of the Hoangho (*Piasezki* ex *Maximowicz*).

13. **Viburnum Hanceanum,** *Maxim. in Mél. Biol.* x. p. 662.

**Viburnum tomentosum,** *Hance in Journ. Bot.* 1870, p. 275, non *Thunb*

CHEKIANG: Amoy (*Fortune*, 47 !); KWANGTUNG: Pakwan hills above Canton (*Sampson*, hb. *Hance*, 10838 !). Mus. Brit.; Herb. Kew.

14. **Viburnum (§ Microtinus) Henryi,** *Hemsl.*, n. sp.

*Frutex* 10-pedalis vel interdum supra rupes vagans (*Henry*), ut videtur sempervirens, undique glaber, ramulis floriferis teretibus, graciliusculis, internodiis foliis brevioribus. *Folia* petiolata, coriacea, oblonga vel ovato-oblonga, absque petiolo usque ad 4 poll. longa, acute acuminata, serrulata, subtus in axillis venarum glandulosa, venis lateralibus primariis utrinque 5–6 sat conspicuis; petiolus sursum dilatatus, subalatus. *Flores* albi (*Henry*), parvi vel minuti (alabastri tantum visi), paniculati pedicellis brevibus; paniculæ terminales, quam folia sæpius breviores, pyramidales, bracteatæ, bracteis linearibus herbaceis cito deciduis inferioribus fere pollicaribus.

HUPEH: Patung district (*Henry*, 1705, 1730, 4060 !). Herb. Kew.

The foliage of this species is very much like that of some of the *Laurocerasus* section of *Prunus*, even to the immersed glands in the axils of the primary veins.

15. **Viburnum lutescens,** *Blume, Bijdr.* p. 625; *DC. Prodr.* iv. p. 325.

**Viburnum sundaicum,** *Miq. Fl. Ind. Bat.* ii. p. 121.

KWANGTUNG: without locality (*Ford* !). Herb. Kew.

Java, Borneo, and Sumatra.

16. **Viburnum macrocephalum,** *Fortune, in Journ. Hort. Soc. Lond.* ii. p. 244; *Lindl. Bot. Reg.* 1847, t. 43; *Walp. Ann.* i. p. 365; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 24, et *in Mél. Biol.* x. p. 652.

**Viburnum Keteleeri,** *Carr. in Rev. Hort.* 1863, p. 269, fig. 31.

KIANGSU: hills near Shanghai (*Carles* ! *Maingay* ! *Forbes* !); CHEKIANG: Chusan (*Fortune* !); FOKIEN: Amoy (*Fortune*, 50 !); HUPEH: Nanto (*A. Henry* !); SZECHUEN: Mount Omei (*Faber* !). Mus. Brit.; Herb. Kew.

Carles, Henry, and Faber all send wild specimens of this species with only a few of the outer flowers neuter, and Forbes collected the same variety at Fengwangshan, not far from Shanghai.

17. **Viburnum odoratissimum,** *Ker in Bot. Reg.* vi. t. 456; *DC. Prodr.* iv. p. 326; *Benth. Fl. Hongk.* p. 143; *Clarke, in Hook. f. Fl. Brit. Ind.* iii. p. 7; *Maxim. in Mél. Biol.* x. p. 294.

Microtinus odoratissimus, *Œrst. in Vidensk. Meddel.* 1860, p. 294, t. 6. figg. 7-10.

Viburnum Awabuki, *C. Koch, Wochenschr.* x. 1867, p. 108.

Viburnum sinense, *Colla, Hort. Rip.* p. 145.

Viburnum chinense, *Zeyh.* ex *Steud. Nomencl. Bot.* ed. 2.

SOUTH CHINA: without locality (*Beechey*! *Millett*!); FOKIEN: Amoy (*Swinhoe*!); HONGKONG (*Wright*! *Wilford*! *Urquhart*! *Lamont*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Eastern India and in Japan.

18. **Viburnum Opulus,** *Linn. Sp. Pl.* ed. 1, p. 268; *DC. Prodr.* iv. p. 328; *A. Gr. in Mem. Amer. Acad.* n. s. vi. p. 393; *Maxim. in Mél. Biol.* x. p. 670; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 383; *Franchet, Pl. David.* p. 148.

CHIHLI: near Peking (*Mœllendorff*! *Bretschneider*!); SHINGKING: Chienshan and other localities (*Ross*! *James*! *Webster*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Europe and Asia Minor through Central Asia to Japan and in eastern North America.

19. **Viburnum phlebotrichum,** *Sieb. et Zucc. Fl. Jap. Fam. Nat.* ii. p. 173; *Franch. et Sav. Enum. Pl. Jap.* p. 200; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 267; *Maxim. in Mél. Biol.* x. p. 667.

Viburnum pubinerve, *Blume, Herb. Jap.*

Viburnum Wrightii, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 267.

Viburnum erosum, *A. Gray, Bot. Jap.* p. 393.

KIANGSI: Kiukiang (*Shearer*! *Maries*!); FORMOSA: Kelung (*Ford*!); HUPEH: Patung district, and Nanto and mountains to the northward (*A. Henry*, 899, 2670, 2857, 2885!); SZECHUEN: Omei at 8000 feet (*Faber*!). Mus. Brit.; Herb. Kew.

Japan.

Maximowicz refers *V. pubinerve* to *V. Opulus*, but the Kew specimen is certainly *V. phlebotrichum.*

The leaves of this species furnish the "Sweet Tea" of Omei, according to Mr. Faber. Szechuen specimens connect *V. Wrightii*, Miq., with *V. phlebotrichum*, the characteristic deciduous hairs being present, though less numerous.

20. **Viburnum (§ Tinus) propinquum,** *Hemsl.*, n. sp.

*Frutex* sempervirens undique glaber, cortice nitido, habitu omnino *V. Tini*. *Folia* longiuscule petiolata, coriacea, ovata, ovato-lanceolata, vel interdum fere oblonga, absque petiolo 2–4 poll. longa, acuminata, triplinervia, supra medium paucidenticulata. *Flores* albo-virides (*Henry*), circiter 2 lineas diametro, pedicellis gracilibus; calycis dentes brevissimi; corolla rotata, intus basi pilosula, lobis obtusissimis; stamina corollam superantia. *Fructus* (maturus non visus) parvus (circiter 1½ lin. diametro) sphæroideus, lævis.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*!). Herb. Kew.

Apart from the nervation of the leaves and the very minute flowers, this species strongly resembles the western *Viburnum Tinus*; and among Chinese species *V. sempervirens*, C. Koch, is the nearest, differing conspicuously in its fine transverse venation.

21. **Viburnum rhytidophyllum,** *Hemsl.*, n. sp.

*Frutex*, ut videtur, ramis floriferis teretibus, crassis primum dense tomentosis. *Folia* petiolata, crassa, coriacea, ovato-oblonga, 4–6 poll. longa, obtusa vel rotundata, integra vel obsolete denticulata, supra glabra, rugosissima, subtus dense albo-tomentosa, costa venisque insigniter elevatis. *Flores* dense umbellatim cymosi; cymæ terminales, ramulis crassis quadrangulatis tomentosis; calycis tomentosi dentibus minutis; petala etc. desunt.

HUPEH: Patung district (*Henry*, 613!). Herb. Kew.

Characterized by large, very coarsely wrinkled leaves, densely felted beneath.

22. **Viburnum Sandankwa,** *Hassk. in Retzia*, i. p. 37; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 268; *Maxim. in Mél. Biol.* x. p. 649; *Bot. Mag.* t. 6172.

KIANGSU: Chinkiang and Yangtse (*Maries*!); LUCHU ARCHIPELAGO (*Wright*! *Wegrich*!). Herb. Kew.

Commonly cultivated in Japan, but not known to be wild.

23. **Viburnum schensianum,** *Maxim. in Mél. Biol.* x. p. 653.

SHENSI: in the southern part along the river Han (*Piasezki* ex *Maximowicz*).

24. **Viburnum sempervirens,** *C. Koch, Hortus Dendr.* p. 300,

*et in Wochenschr.* x. 1867, p. 109; *Œrst. in Vidensk. Meddel.* 1860, p. 299, t. 7. figg. 28–31; *Maxim. in Mél. Biol.* x. p. 651.

Viburnum nervosum, *Hook. et Arn. Bot. Beech. Voy.* p. 190, nec *Don.*

Viburnum venulosum, *Benth. Fl. Hongk.* p. 142.

SOUTH CHINA: without locality (*Beechey*!); ANWHEI: Wuhu (*Bullock*, hb. *Hance*, 21302!); KWANGTUNG: Macao (*Callery*!) Canton (*Reeves*!), Lofaushan (*Ford*!); HONGKONG (*Champion Wright*! *Seemann*! *Lamont*! *Wilford*!). Mus. Brit.; Herb Kew.

25. **Viburnum setigerum,** *Hance in Journ. Bot.* 1882, p. 261

SZECHUEN: mountain of Koloshan at 2000 feet (*Mesny*, hb *Hance*, 21739!). Mus. Brit.

26. **Viburnum tomentosum,** *Thunb. Fl. Jap.* p. 123; *DC. Prodr.* iv. p. 329; *Maxim. in Mél. Biol.* x. p. 661 (*varietates* typicum, cuspidatum *et* plicatum).

Viburnum cuspidatum, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* ii. p. 171.

Viburnum plicatum, *Thunb. in Trans. Linn. Soc.* ii. p. 332; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 266.

Viburnum dentatum, *Thunb. Fl. Jap.* p. 122.

CHEKIANG: Ningpo (*Hancock*!); KIANGSI: Kiukiang (*Maries*!) FOKIEN: Amoy (*Fortune*, 47, 48, 81!); HUPEH: Patung district (*A. Henry*, 711, 1761!). Herb. Kew.

Japan.

27. **Viburnum (§ Tinus) utile,** *Hemsl.*, n. sp.

*Frutex* 4-pedalis (*Henry*), procumbens (*Faber*), sempervirens, ramulis floriferis elongatis rectis primum stellato-tomentosis cito glabrescentibus. *Folia* breviter petiolata, crassa, coriacea, lanceolato-oblonga vel interdum ovato-lanceolata, 1½–3 poll. rarius usque ad 6 poll. longa, obtusa, integerrima, supra glabra, nitida, subtus densissime incano-tomentosa, venis paucis primariis elevatis. *Flores* circiter 4 lineas diametro, dense cymosi; cymæ umbellatæ, hemisphæricæ, 2–3 poll. diametro terminales; calycis lobis brevibus rotundatis; corolla campanulata, lobis latis rotundatis; stamina breviter exserta. *Fructus*, ut videtur, niger, 4–5 lineas longus, putamine leviter sulcato.—*V. cotinifolium* Hance in Journ. Bot. 1882, p. 6, *non* Don.

HUPEH: Ichang and Nanto and mountains to the northward (*Henry*, 131, 260, 2622!), Ichang (*Watters*!); SZECHUEN: on

the banks of the Yangtse below Hokiang and elsewhere (*Faber* !); KWEICHAU (*Mesny*, hb. *Hance* !). Mus. Brit.; Herb. Kew.

This species is readily distinguished by its thick entire leaves, glabrous and shining above and felted beneath. The branches are used for making pipe-stems according to Dr. Henry.

There are imperfect specimens of two other, possibly undescribed, species of *Viburnum* in the Kew Herbarium, from Szechuen, collected by the Rev. E. Faber.

1. **Actinotinus sinensis**, *Oliv. in Hook. Ic. Pl.* xviii. t. 1740.

HUPEH: Patung district (*A. Henry* !). Herb. Kew.

In floral structure this proposed new genus differs no more from *Viburnum* than some of the species of *Viburnum* do from each other; but the digitately compound leaves offer such a strikingly different character from all the numerous species of *Viburnum*, spread over the northern hemisphere and Andes, that it seems desirable to give it generic rank. The fruit is unknown, and that may afford some distinctive feature. Dr. Henry states that this tree is very rare.

1. **Triosteum hirsutum**, *Wall. in Roxb. Fl. Ind. ed. Carey & Wallich*, ii. p. 180; *DC.* iv. p. 330; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 8.

SZECHUEN: summit of Mount Omei (*Faber* !). Herb. Kew.

North India, from Kumaon to Sikkim at 10,000 to 12,000 feet.

2. **Triosteum pinnatifidum**, *Maxim. in Mél. Biol.* xi. p. 229.

KANSUH: frequent in alpine woods (*Przewalski* ex *Maximowicz*).

3. **Triosteum sinuatum**, *Maxim. in Mél. Biol.* vii. p. 553; *Hook. Ic. Pl.* t. 1586.

SHINGKING: hills near Moukden (*James* !). Herb. Kew.

Mandshuria and Japan.

1. **Dipelta floribunda**, *Maxim. in Mél. Biol.* x. p. 80.

SHENSI: mountains around Hanschunfoo (*Piasezki* !). Herb. Kew.

Said to bear red edible berries.

1. **Abelia biflora**, *Turcz. in Bull. Soc. Nat. Mosc.* 1837, vii. p. 152; *Walp. Rep.* ii. p. 446; *Maxim. Fl. Amur.* p. 472, et *in Mél. Biol.* xii. p. 477; *Franchet, Pl. David.* p. 151, t. 11 (errore *triflora* in tab.).

Abelia Davidii, *Hance in Journ. Bot.* 1868, p. 329, et 1875, p. 132.

CHIHLI: near Peking (*Tatarinow*!), Pohuashan (*Bretschneider*!), Jehol (*David*!). Mus. Brit.; Herb. Kew.

Mandshuria.

2. **Abelia chinensis**, *R. Br. in Abel's 'Narrative of a Journey in the Interior of China,'* p. 377, cum tab.; *DC. Prodr.* iv. p. 339; *Hance in Journ. Bot.* 1882, p. 289; *Maxim. in Mél. Biol.* xii. p. 475.

Abelia Hanceana, *Mart. apud Hance in Ann. Sc. Nat.* 5me série, v. p. 216.

Linnæa chinensis, *A. Br. et Vatke in Œsterr. Bot. Zeitschr.* 1872, p. 291.

Abelia rupestris, *Lindl. Journ. Hort. Soc. Lond.* i. p. 63, et *in Bot. Reg.* 1846, t. 8; *Lindl. & Paxt. Fl. Gard.* ii. p. 130, fig. 201; *Maxim. in Mél. Biol.* xii. p. 475.

Linnæa rupestris, *A. Br. et Vatke in Œsterr. Bot. Zeitschr.* 1872, p. 291.

Abelia rupestris, *var.* grandiflora, *Carr. in Rev. Hort.* 1866, p. 488?

KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Wilford*, hb. *Hance*, 1446!); HUPEH: Ichang, Patung, and Nanto (*A. Henry*!); SZECHUEN: Wushan Gorge (*Faber*!); KWANGTUNG: North river (*Ford*! *B. C. Henry*!). Mus. Brit.; Herb. Kew.

Readily distinguished by its dense subterminal clusters of small flowers.

We have seen no authenticated specimens of *A. rupestris*, Lindl., but the plant cultivated under this name we regard as a variety of *A. chinensis*. Fortune discovered it on the Chimoo hills, about fifty miles north of Amoy.

3. **Abelia parvifolia**, *Hemsl.*, n. sp.

*Frutex* 1–2-pedalis, caulibus vel ramis rectis teretibus graciliusculis apicem versus tantum floriferis. *Folia* brevissime petiolata, crassa, persistentia?, ovata vel ovato-oblonga, 3–9 lineas longa, obtusa vel acuta, basi rotundata, integra vel interdum obscure paucidentata, utrinque plus minusve hirsuta, supra hispidula, venis utrinque immersis inconspicuis. *Flores* rosei (*Henry*), puberuli, in axillis foliorum solitarii (an semper?), subsessiles, bracteis minutis; calycis lobi sæpissime 2, ampli, obovato-oblongi; corolla angusta, circiter 9 lineas longa, lobis brevibus

rotundatis subæqualibus; stamina breviter exserta, filamentis parce puberulis. *Fructus* ignotus.

HUPEH: Ichang and neighbourhood (*A. Henry*, 664, 2337 !); SZECHUEN: Kneichou (*Faber*, 577 !). Herb. Kew.

This has a very distinct appearance, yet it may prove to be a much reduced state of *A. uniflora*.

4. **Abelia uniflora**, *R. Br. in Wall. Pl. As. Rar.* i. p. 15 (absque descr.); *Lindl. in Bot. Reg.* 1846, sub tab. 8; *Lindl. et Paxt. Fl. Gard.* ii. p. 145, fig. 208; *Belgique Horticole*, iii. p. 338, cum ic. col.; *Bot. Mag.* t. 4694; *Maxim. in Mél. Biol.* xii. p. 476.

Linnæa uniflora, *A. Br. et Vatke in Œsterr. Bot. Zeitschr.* 1872, p. 291.

Abelia serrata, *Sieb. et Zucc. Fl. Jap.* i. p. 76, t. 34; *Hance in Journ. Bot.* 1882, p. 6.

FOKIEN: in the tea district (*Reeves* !); HUPEH: Ichang (*Watters* !), Ichang, Patung and Nanto (*A. Henry* !); SZECHUEN: Mount Omei at 3000 feet (*Faber* !), Chungking (*Parker*, hb. *Hance* !). Mus. Brit.; Herb. Kew.

Japan.

Maximowicz distinguishes *A. serrata* from *A. uniflora*, but we have failed to seize the differences.

1. **Linnæa borealis**, *Linn. Sp. Pl.* ed. 1, p. 631; *DC. Prodr.* iv. p. 340; *Ledeb. Fl. Ross.* ii. p. 392; *Maxim. Prim. Fl. Amur.* p. 139.

NORTH CHINA: mountains on the border of Mandshuria (*James* !); COREA (*Bushell*, hb. *Hance*, 653 !). Mus. Brit.; Herb. Kew.

Western Europe through Central Asia to the Amur, Sachalin, and Kamtschatka; but not recorded from Japan, though common in North America, especially on the western side, where it extends southward to the mountains of California.

1. **Lonicera affinis**, *Hook. et Arn. Bot. Beech. Voy.* p. 264; *Walp. Rep.* ii. p. 449; *Maxim. in Mél. Biol.* x. p. 58.

LUCHU ARCHIPELAGO (*Beechey* !). Mus. Brit.; Herb. Kew.

Also in Japan.

Var. **pubescens**, *Maxim. in Mél. Biol.* x. p. 59.

Lonicera mollissima, *Blume* ex *Maxim.*

Lonicera hypoglauca *et* L. Leschenaultii, *Miq.* (non *Wall.*) *in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 270.

FORMOSA: Tamsui (*Oldham*, 208 !). Mus. Brit.; Herb. Kew.

Common in Japan; but it is a little doubtful whether the Formosa plant be the same.

2. **Lonicera** (§ **Xylosteum**) **Bournei**, *Hemsl.*, n. sp.

*Frutex* glaber vel cito glabrescens, ramulis floriferis graciliusculis internodiis quam folia brevioribus. *Folia* brevissime petiolata, coriacea, persistentia ?, late cordato-ovata, circiter 1 poll. longa, obtusa vel subacuta, utrinque glabra, supra subnitida, venis immersis. *Flores* intus extusque glabri, $1\frac{1}{4}$–$1\frac{1}{2}$ poll. longi, pedunculis axillaribus bifloris 3–6 lineas longis; bracteæ breves, angustæ, ciliolatæ; bracteolæ minutæ; calycis limbus breviter cupulatus, inæqualiter 5-dentatus, dentibus deltoideis ciliolatis; corolla anguste tubulosa, breviter bilabiata; stamina vix exserta; ovaria inter se omnino libera stylo filiformi. *Baccæ* desunt.

SOUTH-WEST CHINA: Sanchia (*F. S. A. Bourne* !). Herb. Kew.

There is only one small specimen of this apparently distinct species, which has much the aspect of some of the simple-leaved species of *Jasminum*.

3. **Lonicera chrysantha**, *Turcz. in Ledeb. Fl. Ross.* ii. p. 388; *Maxim. Prim. Fl. Amur.* pp. 135, 472, 482, et *in Mél. Biol.* x. p. 68; *Regel, Gartenfl.* 1863, p. 211, t. 404.

Lonicera Xylosteum, *Regel, Fl. Usur.* n. 238, non *Linn.* fide *Maxim.*

CHIHLI: near Peking (*Mœllendorff* ! *Tatarinow* ! *Bretschneider* !), Jehol (*David*, 1768 !); SHINGKING: hills near Moukden (*James* !). Mus. Brit.; Herb. Kew.

Dahuria and Mandshuria to Sachalin Island.

Var. **longipes**, *Maxim. in Mél. Biol.* x. p. 68.

KANSUH (*Przewalski* & *Piasezki* ex *Maximowicz*).

*Lonicera Morrowi*, A. Gray (Narr. Perry's Exped. p. 313), is apparently not specifically different from this.

4. **Lonicera cærulea**, *Linn. Sp. Pl.* ed. 1, p. 174; *DC. Prod.* iv. p. 337; *Ledeb. Fl. Ross.* ii. p. 390; *Bot. Mag.* t. 1965; *Maxim. in Mél. Biol.* x. p. 75 (var. tangutica).

KANSUH (*Przewalski* ex *Maximowicz*); SZECHUEN: summit of Mount Omei (*Faber* !). Herb. Kew.

Western Europe through Central Asia to Japan, and in North America.

Faber's specimen is in young fruit and has very decidedly obovate leaves.

5. **Lonicera confusa,** *DC. Prodr.* iv. p. 333; *Debeaux, Fl. Tchéf.* p. 69, et *Fl. Shangh.* p. 33?; *Maxim. in Mél. Biol.* x. p. 57.

Lonicera japonica, *Andr. Bot. Rep.* t. 583; *Bot. Reg.* t. 70, non *Thunb.*

Lonicera Periclymenum, *Lour. Fl. Cochinch.* p. 150, non alior.

Lonicera multiflora, *Champ. in Hook. Kew Journ. Bot.* iv. p. 167; *Benth. Fl. Hongk.* p. 144.

Lonicera Telfairii, *Hook. et Arn. Bot. Beech. Voy.* p. 190.

HONGKONG: cultivated (*Champion*!), wild (*Hance*, 639!); KWANGTUNG: without locality (*Millett*!), Lofaushan (*Ford*!). Mus. Brit.; Herb. Kew.

This is recorded from various other localities in China, but it is uncertain whether the writers had this species in view, as this and the true *L. japonica* have been very much confused. On the other hand, it is possible that the supposed distinctions between them are not constant.

6. **Lonicera decipiens,** *Hook. f. et Thoms. in Journ. Linn. Soc.* ii. p. 170; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 14.

SZECHUEN: Chungking and Mount Omei (*Faber*!). Herb. Kew.

Central and Eastern Himalayas.

7. **Lonicera Elisæ,** *Franchet, Pl. David.* p. 152, t. 12. fig. B (*Nouv. Archives du Mus.* 2ᵉ série, vi. t. 12).

CHIHLI: Jehol (*David*, 1774!). Mus. Brit.; Herb. Kew.

8. **Lonicera Ferdinandi,** *Franchet, Pl. David.* p. 151, t. 12. fig. A (*Nouv. Archives du Mus.* 2ᵉ série, vi. t. 12).

HUPEH: Ichang, Nanto and neighbourhood (*A. Henry*, 1107, 3011, 3188!). Herb. Kew.

Mongolia.

9. **Lonicera fragrantissima,** *Lindl. & Paxt. Fl. Gard.* iii. p. 75, fig. 268; *Lindl. in Gard. Chron.* 1858, p. 314 (*sphalmate* L. odoratissima); *Gard. Chron.* n. s. ix. p. 106, fig. 19; *Maxim. in Mél. Biol.* x. p. 66.

CHINA: without locality (*Fortune*). Herb. Kew.

There are only cultivated specimens of this in the Kew Herbarium.

[*Lonicera fragrantissima*, Carr. (Rev. Hort. 1873, p. 169, fig. 16), is a winter-flowering species recorded from China, and probably the same as the above, though it is described as half evergreen, and the flowers are represented smaller.]

10. **Lonicera** (§ **Xylosteum**) **fuchsioides**, *Hemsl.*, n. sp. (Plate IX.)

*Frutex*, ut videtur, erectus, novellis strigillosis, sed citissimo undique glabrescens, ramulis floriferis teretibus cortice rubescenti. *Folia* opposita vel ternatim verticillata, breviter petiolata, subcoriacea, oblonga vel ovato-oblonga, usque ad 6 poll. longa, 1⅛–1¾ poll. lata, longe acuteque acuminata, basi rotundata, venis inconspicuis. *Flores* circiter 1 poll. longi, pedunculis bifloris in axillis foliorum, præcipue superiorum minorum, solitariis graciliusculis quam flores brevioribus; bracteæ subulatæ, ovaria excedentes; bracteolæ minutæ, rotundatæ, liberæ; calycis dentes æquales sat conspicui, persistentes; corolla recta, bilabiata, tubo cylindrico labia æquante; labium anticum recurvatum intus medio pilis paucis instructum; labium posticum erectum, breviter 4-lobum, lobis rotundatis lateralibus margine interiore basi auriculatis vel semisagittatis; tubus intus hirsutus; stamina breviter exserta, filamentis basi tantum hirsutis; stylus crassus, infra medium hirsutus. *Baccæ* liberæ, maturæ non visæ.

SZECHUEN Mount Omei at 5000 feet (*Faber*!). Herb. Kew.

A very distinct species, recalling in general aspect some of the Andine species of *Fuchsia*, which have the leaves opposite or verticillate and suberect flowers.

11. **Lonicera** (§ **Xylosteum**) **gynochlamydea**, *Hemsl.*, n. sp.

*Frutex* humilis (*Henry*), ramosissimus, parce puberulus, ramulis floriferis gracillimis dense foliiferis. *Folia* graciliter petiolata, permembranacea, anguste lanceolata, 2½–4 poll. longa, acuminatissima, parcissime puberula, ciliolata. *Flores* rosei (*Henry*), 5–6 lineas longi, pedunculis bifloris filiformibus axillaribus æquilongi vel breviores; bracteæ subulatæ, patentes; bracteolæ glabræ, cupulatim connatæ, ovaria omnino inclusæ, infra calyptram calycinam incrassatæ; calyces deorsum supra cupulam bracteolatam calyptratim vel annulatim producti, limbi dentibus

rotundatis ciliolatis; corolla intus extusque hirsuta, alte bilobata, usque ad gibbum amplissimum fissa, labio postico breviter obtuseque 4-lobato; stamina longe exserta, filamentis infra medium barbatis; ovaria inter se omnino libera, stylo prorsus piloso. *Baccæ* non visæ.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

The Indian *L. ligustrina*, Wall., the Chinese *L. pileata*, Oliv., and the present species exhibit, in different degrees, a remarkable downward cap-like production of the calyx over the connate bracteoles.

12. **Lonicera** (§ **Xylosteum**) **Henryi**, *Hemsl.*, n. sp.

*Frutex* scandens vel vagans, ramulis floriferis brevibus rigidis dense ferrugineo-pubescentibus. *Folia* breviter petiolata, coriacea, persistentia?, ovato-oblonga, 1½–4 poll. longa, acuminata, basi rotundata vel subcordata, utrinque costa excepta glabra, margine ciliata, venis inconspicuis. *Flores* rubri (*Henry*) vix 1 poll. longi, glabri, pedunculis brevioribus pubescentibus bifloris ad apices ramulorum aggregatis; bracteæ subulatæ, paucisetulosæ vel glabrescentes; bracteolæ parvæ, ovato-oblongæ, ciliolatæ; calycis glaberrimi dentes oblongæ, obtusæ, crassiusculi, conspicui, persistentes; corolla recta, distincte bilabiata, lobis obtusissimis lateralibus labii postici basi intus margine interiore auriculati, tubo intus hirsutus; stamina breviter exserta, filamentis glabris; ovaria inter se libera, stylo præcipue infra medium piloso. *Baccæ* parvæ, spheroideæ, glaucæ.

HUPEH: Patung district (*A. Henry*, 1789, 2804, 2844, 4015!). Herb. Kew.

Nearest the Indian *L. glabrata*, Wall., a species having relatively broad leaves on longer petioles.

13. **Lonicera hispida**, *Pall. in Schult. Syst. Veg.* v. p. 258; *Ledeb. Fl. Ross.* ii. p. 389, et *Ic.* t. 212; *DC. Prodr.* iv. p. 338; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 11; *Maxim. in Mél. Biol.* x. p. 72.

KANSUH (*Przewalski & Piasezki ex Maximowicz*); SZECHUEN: Mount Omei, 8000 feet (*Faber*!). Herb. Kew.

Siberia and North India, from Kashmir to Sikkim. F... specimen, the only Chinese one we have seen, is more hai... the Siberian plant and has longer slenderer peduncle... larger bracts, and larger, more hairy flowers, being, ... respects, more like the Indian variety.

14. **Lonicera japonica**, *Thunb. Fl. Jap.* p. 89 *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 269; *Maxim. in Mél. Biol.* x. p. 56; *Kurz in Journ. Bot.* 1873, p. 193; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 223 (varietates).

Lonicera chinensis, *Wats. Dendr. Brit.* t. 117; *DC. Prodr.* iv. p. 333; *Bunge, Enum. Pl. Chin. Bor.* p. 33; *Debeaux, Fl. Shangh.* p. 33.

Lonicera flexuosa, *Thunb. in Trans. Linn. Soc.* ii. p. 330; *Bot. Reg.* t. 712.

Lonicera confusa, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 269, non *DC.*

Lonicera brachypoda, *DC. Prodr.* iv. p. 335.

Lonicera japonica, *var.* chinensis, *Baker in Saund. Refug. Bot.* t. 224.

Lonicera brachypoda, *var.* reticulata, *Belg. Hort.* 1871, p. 59, t. 5.

Lonicera brachypoda, *var.* foliis aureo-reticulatis, *Ill. Hort.* 1862, t. 337.

CHIHLI: Panshan Mountains (*Bunge*!), near Peking (*Bretschneider*!); SHINGKING: Talienhwan (*Birnie*!); KIANGSU: Fengwangshan (*Forbes*, hb. *Hance*, 637), Shanghai (*Maingay*! *Harland*!); FOKIEN: Amoy (*Fortune*, 65!); FORMOSA: Tamsui (*Oldham*, 209! *Hancock*! *Swinhoe*!); HUPEH: Ichang (*A. Henry*!); SHENSI (*Piasezki* ex *Maximowicz*); SZECHUEN: Chung city (*Faber*!); COREA: Port Chusan (*Wilford*!); COREAN ARCHIPELAGO (*Oldham*, 485!). Mus. Brit.; Herb. Kew.

Japan.

15. **Lonicera leiantha**, *Kurz, For. Fl. Brit. Burm.* ii. p. 3.

YUNNAN: Poneshee (*Anderson*!). Herb. Kew.

Birma.

16. **Lonicera longiflora**, *DC. Prodr.* iv. p. 331; *Benth. Fl. Hongk.* p. 143; *Maxim. in Mél. Biol.* x. p. 58.

Caprifolium longiflorum, *Lindl. in Bot. Reg.* t. 1232.

SOUTH CHINA: without locality (*Staunton*! *Millett*!); HONGKONG (*Champion*! *Wright*! *Urquhart*! *Hance*!). Mus. Brit.; Herb. Kew.

lis flo 17. **Lonicera Maackii**, *Maxim. in Mél. Biol.* x. p. 66; *Baker*
permet *S. Moore in Journ. Linn. Soc.* xvii. p. 383.
natissim ...osteum Maackii, *Rupr. Pl. Maack.* n. 55, *in Bull. Phys. Math.* xv.
5–6 linea
æquilongi ...GKING: Moukden, Peiling, Fungwangshan, and other
glabræ, cup ...s (*Ross*! *Webster*! *James*!); KIANGSU: Shanghai (*Faber*!
ptram calyc ...); KIANGSI: Kiukiang (*Maries*!); FOKIEN: Amoy
bracteolatam c

(*Fortune*, 34 !) ; HUPEH : Nanto and Patung district (*A. Henry* !). Mus. Brit. ; Herb. Kew.

Mandshuria and Japan.

18. **Lonicera macrantha**, *DC. Prodr.* iv. p. 333 ; *Benth. Fl. Hongk.* p. 143 ; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 10 ; *Maxim. in Mél. Biol.* x. p. 58 ; *Benth. Fl. Hongk.* p. 143, *excl. syn.* L. japonica.

Lonicera japonica, *Hook. f. et Thoms. in Journ. Linn. Soc.* ii. p. 171, *excl. syn.* L. confusa.

Lonicera hirtiflora, *Champ. in Hook. Kew Journ. Bot.* iv. p. 166.

FOKIEN : Amoy (*Fortune*, 125 !) ; HUPEH : Ichang and immediate neighbourhood (*A. Henry* !) ; FORMOSA : Tamsui (*Oldham*, 207 !) ; YUNNAN : Momyen (*Anderson* !) ; HONGKONG (*Champion* ! *Hinds* ! *Wright* ! *Hance*, 636 ! *Wilford* !); HAINAN (*Swinhoe* !). Mus. Brit. ; Herb. Kew.

North India, from Nepal to the Khasia Mountains.

19. **Lonicera microphylla**, *Willd. in Rœm. et Schult. Syst. Veg.* v. p. 258 ; *DC. Prodr.* iv. p. 336 ; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 15 ; *Maxim. in Mél. Biol.* x. p. 64.

KANSUH (*Przewalski* ex *Maximowicz*).

Siberia to Mandshuria and in North-western India.

20. **Lonicera nervosa**, *Maxim. in Mél. Biol.* x. p. 62.

KANSUH (*Przewalski* ex *Maximowicz*).

21. **Lonicera phyllocarpa**, *Maxim. Prim. Fl. Amur.* p. 138, *in adnot.*, et *in Mél. Biol.* x. p. 71.

CHIHLI : mountains west of Peking (*Tatarinow* ex *Maximowicz*).

22. **Lonicera pileata**, *Oliv. in Hook. Ic. Pl.* xv. t. 1585.

HUPEH : Ichang (*A. Henry* !). Herb. Kew.

23. **Lonicera quinquelocularis**, *Hardw. in Asiat. Res.* vi. p. 351 ; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 14.

Lonicera diversifolia, *Wall. in Roxb. Fl. Ind. ed. Carey et Wall.* ii. p. 178 ; *DC. Prodr.* iv. p. 334 ; *Hook. Ic. Pl.* t. 807 ; *Lindl. in Bot. Reg.* xxx. t. 33.

HUPEH : Nanto and mountains to the northward (*A. Henry* !). Herb. Kew.

Common in North-west India, and also found in Bhotan.

Dr. Henry describes this as a tree thirty feet high, and Madden, on a label in the Kew Herbarium, attached to a specimen from near Simla, designates it a shrub or small tree.

24. **Lonicera reticulata**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 167; *Walp. Ann.* v. p. 95; *Benth. Fl. Hongk.* p. 144; *Maxim. in Mél. Biol.* x. p. 58.

HONGKONG (*Champion*! *Hance,* 6054!). Mus. Brit.; Herb. Kew.

Champion states that he found this species on the summits of the hills in grass or on rocks; yet, so far as we know, it has not been gathered by any subsequent collector, except Hance.

25. **Lonicera Ruprechtiana**, *Regel, Gartenflora,* xix. (1870), p. 68, t. 645; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 283; *Maxim. in Mél. Biol.* x. p. 70.

SHINGKING: Hingjing (*Ross*!), Peiling (*Webster*!). Herb. Kew.

Mandshuria.

We have seen no authenticated specimen of this species, and the figure in the 'Gartenflora' is not sufficient to put our determination beyond doubt.

26. **Lonicera (§ Xylosteum) similis**, *Hemsl.*, n. sp.

*Frutex* scandens, ramulis elongatis flexuosis patentim pilosis. *Folia* iis *L. macranthæ varietatis indicæ* similia, breviter petiolata, papyracea, elongato-ovata vel cordata, 2–4 poll. longa, acutissima, ciliata, supra præcipue secus costam parce strigosa, demum glabrescentia, venis impressis, subtus albida, parce strigosa, simul brevissime densissimeque stellato-tomentosa. *Flores* pubescentes, angustissimi (alabastra tantum visa), saltem 1½ poll. longi, pedunculis bifloris axillaribus gracilibus longe patentimque pilosis usque ad bipollicaribus; bracteæ pilosæ, subulatæ, quam ovaria longiores; bracteolæ minutæ, rotundatæ; calycis dentes ovato-oblongi, longe ciliati simul pubescentes; ovaria inter se omnino libera, stylo glabro. *Baccæ* desunt.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.

This is a very distinct species, though the foliage is singularly like that of an Indian variety of *L. macrantha* in shape, colour, and indumentum.

27. **Lonicera Standishii**, *Hook. f. in Bot. Mag.* t. 5709; *Gard. Chron.* n. s. ix. p. 106, fig. 20; *Maxim. in Mél. Biol.* x. p. 65.

KIANGSI: Kiukiang (*Maries*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!). Herb. Kew.

This was introduced into English gardens by Fortune, on whose authority (Bot. Mag. sub tab. 5709) it was common in gardens at Shanghai, where, however, F. B. Forbes tried in vain to find it.

28. **Lonicera syringantha**, *Maxim. in Mél. Biol.* x. p. 77, *cum* var. minor.

CHINA: Kansuh (*Przewalski* ex *Maximowicz*). Herb. Kew.

29. **Lonicera tangutica**, *Maxim. in Mél. Biol.* ii. p. 75.

KANSUH (*Przewalski* ex *Maximowicz*).

30. **Lonicera Tatarinowii**, *Maxim. in Prim. Fl. Amur.* p. 138, *in adnot.*, et *in Mél. Biol.* x. p. 61.

CHIHLI: mountains near Peking (*David*, hb. *Hance*, 14540!). Mus. Brit.

31. **Lonicera (§ Caprifolium) tragophylla**, *Hemsl.*, n. sp.

*Frutex* scandens vel vagans, fere undique glaber vel cito glabrescens, ramulis floriferis gracilibus. *Folia* breviter petiolata vel sessilia (paria 3–1 superiora connata rotundata vel deltoidea), papyracea, oblonga, usque ad 4 poll. longa, rotundata obtusa vel interdum subacuta, basi cuneata, supra glabra, subtus glauca simul primum præcipue secus costam venasque puberula. *Flores* lutei (*Henry*), 2½–3 poll. longi, pauci in capitulos terminales breviter pedunculatos dispositi; calycis dentes minuti, persistentes; corollæ tubus angustus, leviter curvatus, labiis plus quam duplo longior, intus basin versus parcissime puberulus; labiorum lobi rotundati; labium anticum, ut videtur, incurvatum; stamina glabra; stylus glaber. *Baccæ* non visæ.

HUPEH: Patung district, rare (*A. Henry*!). Herb. Kew.

Closely related to *L. Caprifolium*, Linn., differing in the longer narrower leaves, fewer larger flowers, and other small details. So far as we know there is no allied species nearer than the Caucasus, the American species of this group being less like the present plant.

32. **Lonicera** (§ **Xylosteum**), sp. nov.? *F. cærulea* similis. *Frutex* pedalis (*Henry*), foliis obovatis oblanceolatisve, bracteis subfoliaceis, floribus non visis, fructu rubro (*Henry*), baccis totis connatis dentibus calycinis ciliolatis coronatis.

HUPEH: Patung district (*A. Henry*, 4053!). Herb. Kew.

33. **Lonicera** sp., ex affinitate *L. Maximowiczii*, foliis graciliter petiolatis anguste lanceolatis longe acuminatis margine ciliatis, floribus extus glabris, corolla paullo supra basin gibba basi constricta, ovariis ad medium connatis, stylo piloso.

KIANGSI: Kiukiang (*Maries*!). Herb. Kew.

34. **Lonicera** (§ **Xylosteum**) sp.; foliis deciduis non visis, floribus albis præcocibus glabris, corolla fere æqualiter 5-lobata.

HUPEH: Patung district (*A. Henry*, 3790!). Herb. Kew.

Apparently a distinct undescribed species, yet it might cause confusion to attempt to characterize it without leaves.

There is also a leafless flowering specimen of another species of *Lonicera* in the Kew Herbarium, collected by Mr. Carles in the mountains south of Soul, Corea; besides imperfect specimens of two or three others from Ichang.

1. **Leycesteria formosa**, *Wall. in Roxb. Fl. Ind. ed. Wall. & Carey*, ii. p. 182; *Pl. As. Rar.* ii. p. 20, t. 120; *DC. Prodr.* iv. p. 338; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 16; *Kurz in Journ. Bot.* 1873, p. 193; *Bot. Mag.* t. 3699.

YUNNAN: Momien (*Anderson*!). Herb. Kew.

North Indian, from Kumaon to the Khasia mountains.

1. **Diervilla florida**, *Sieb. et Zucc. Fl. Jap.* i. p. 75; *Carr. Rev. Hort.* 1853, p. 309; *Hance in Journ. Linn. Soc.* xiii. p. 81; *Maxim. in Mél. Biol.* xii. p. 482.

Calysphyrum floridum, *Bunge, Enum. Pl. Ch. Bor.* p. 34.

Weigela rosea, *Lindl. in Journ. Hort. Soc.* i. (1846), pp. 65 et 189, t. 6; *Bot. Mag.* t. 4396; *Flore des Serres*, t. 211 (*ic. Journ. Hort. Soc. iterata*).

Diervilla rosea, *Walp. Ann.* i. p. 365; *Franchet, Pl. David.* i. p. 151.

Weigela pauciflora, *DC. in Ann. Sc. Nat.* 2me série, xi. p. 241.

Weigela florida, *DC. loc. cit.*

Calysphyrum pauciflorum, *Bunge in Walp. Rep.* ii. p. 450.

Diervilla pauciflora, *Carr. in Rev. Hort.* 1853, p. 310.

Diervilla amabilis, *Carr. loc. cit.* p. 305; *Flores des Serres*, t. 855.

Weigela amabilis, *Hort.*; *Bot. Mag.* t. 4893.

Weigela alba, *Carr. in Rev. Hort.* 1861, p. 331.

Weigela Isalinæ, *Flore des Serres*, t. 1445.

Weigela amabilis striata, *Flore des Serres*, t. 1446.

CHIHLI: cultivated in gardens (*Bunge*!), Jehol (*David*, 1798!); SHINGKING: Kwandien and Hingjing (*Ross*!); FOKIEN: Foochow (*Faber*! *Tonnerre*!), Amoy (*Fortune*, 25!); COREA: Soul (*Carles*!); COREAN ARCHIPELAGO: Herschel Island (*Oldham*, 490!). Mus. Brit.; Herb. Kew.

Mandshuria.

We have followed Maximowicz in the synonymy of this species, but we have recorded only such Chinese specimens as we have actually seen. It is not difficult to recognize *D. florida* among the numerous cultivated and wild Japanese and Chinese specimens of *Diervilla* that we find in herbaria; but we are quite unable to distinguish *D. floribunda* (*versicolor*), *D. grandiflora*, and *D. japonica* (*hortensis*) from each other, and other botanists seem to have been equally perplexed, and to have variously understood these so-called species. All the Chinese specimens we have seen (except, perhaps, one from the Corea), which are not referable to *D. florida*, are evidently of one species, though we cannot determine what name it should bear; but we choose the following as the most appropriate, without attempting to decide whether *D. grandiflora* and *D. japonica* should be reduced to synonyms of it.

2. **Diervilla floribunda**, *Sieb. et Zucc. Fl. Jap.* p. 73, t. 32; *Maxim. in Mél. Biol.* xii. p. 485.

Diervilla versicolor, *Sieb. et Zucc. Fl. Jap.* p. 73, t. 33, *excl. syn.* D. multiflora; *Lem. Ill. Hort.* x. (1863), t. 380, ex *Maxim.*

ANWHEI: Wuhu (*Bullock*, hb. *Hance*, 10905!); HUPEH: Ichang, Patung, and Nanto and the neighbouring country (*A. Henry*!). Mus. Brit.; Herb. Kew.

Japan.

This shrub appears to be very common in the district botanized by Dr. Henry, who sends it under some half a dozen different numbers.

## 68. RUBIACEÆ: NAUCLEÆ.

1. **Cephalanthus occidentalis**, *Linn. Sp. Pl.* ed. 1, p. 95; *DC. Prodr.* iv. p. 538; *Benth. Fl. Hongk.* p. 146 (*in nota sub* Adina);

*Maxim. in Mél. Biol.* ix. p. 270; *A. Gray in Bot. Calif.* i. p. 282; *Emers. Trees and Shrubs of Massachusetts*, p. 394, cum ic.

Cephalanthus naucleoides, *DC. Prodr.* iv. p. 539; *Hook. f. Fl. Brit. Ind.* iii. p. 24; *Hance in Journ. Bot.* 1882, p. 6.

CHINA: without locality (*Fortune*, 15!); KWANGSI (*Mesny*, hb. *Hance*). Mus. Brit.; Herb. Kew.

Eastern India, Malayan peninsula and archipelago, and in North America, ranging from Canada to California, Texas, Mexico, and the West Indies.

Fortune's Chinese specimens of this tree resemble Mexican and Texan specimens more closely than they do any of those we have seen from other parts of Asia.

[*Cephalanthus*? *orientalis*, Roem. et Schult. (Syst. Veg. iii. p. 105), and *C. montanus*, Lour. (Fl. Cochinch. p. 67), are both obscure plants; and *Cephalanthus chinensis*, Lam. (Encycl. i. p. 678, excl. syn.), syn. *Anthocephalus chinensis*, Hassk. (Flora, 1845, p. 231), is the same as *Nauclea purpurea*, Roxb. (vide Hook. f. Fl. Brit. Ind. iii. p. 26), which is a native of the Western peninsula of India and not of China.]

1. **Adina globiflora**, *Salisb. Parad. Lond.* t. 115; *DC. Prodr.* iv. p. 349; *Benth. Fl. Hongk.* p. 146; *Miq. in Journ. de Bot. Néerl.* i. p. 109 (*errore* globifera); *Maxim. in Engl. Bot. Jahrb.* vi. p. 67, et *in Mél. Biol.* xii. p. 486; *Henriq. in Bol. Soc. Brot.* iii. p. 148.

Nauclea Adina, *Smith in Rees's Cyclop.*; *Lindl. in Bot. Reg.* t. 895; *Bot. Mag.* t. 2613.

Nauclea adinoides, *Lindl. in Bot. Reg., in nota sub præced.*

Adina peduncularis, *DC. Prodr.* iv. p. 349.

Cephalanthus pilulifera, *Lam. Encycl.* i. p. 678, ex *Baill. Adans.* xii. p. 313.

Nauclea pilulifera, *Baill. Adans.* xii. p. 313; *Franchet, Pl. David.* p. 154.

CHINA: without locality (*Fortune*, 119!); SHENSI: southern (*David* ex *Franchet*); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wright*! *Wilford*! *Hance*! *Urquhart*!). Mus. Brit.; Herb. Kew.

2. **Adina racemosa**, *Miq. Cat. Mus. Bot. Lugd.-Bat. Fl. Jap.* p. 44; *Maxim. in Mél. Biol.* ix. p. 270; *Franch. et Sav. Enum. Pl. Jap.* i. p. 206.

Nauclea racemosa, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* n. 601; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 108.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); KWANGTUNG: without locality (*Ford*!). Herb. Kew.

Japan.

[*Adina polycephala*, Benth. (Fl. Hongk. p. 146), is common in Eastern India, and extends to Cochinchina, but the record of its occurrence in China proper is probably erroneous, as no specimen exists in the Kew Herbarium.]

3. **Adina rubella,** *Hance in Journ. Bot.* 1868, p. 114; *Hemsl. in Journ. Bot.* 1876, p. 208; *Maxim. in Mél. Biol.* ix. p. 270.

KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and Nanto (*A. Henry*!); KWANGTUNG: North and West rivers (*Sampson*!). Mus. Brit.; Herb. Kew.

4. **Adina,** sp.?, undique glabra, foliis lanceolatis acuminatis tenuiusculis, florum capitulis axillaribus solitariis, graciliter pedunculatis.

KWANGTUNG: without locality (*Ford*, 314!). Herb. Kew.

This is quite distinct from the species enumerated above, but the flowers are all in an abnormal condition consequent on the attack of a gall-insect.

## 68. RUBIACEÆ: CINCHONEÆ.

1. **Luculia Pinceana,** *Hook. Bot. Mag.* t. 4132; *Hook. f. Fl. Brit. Ind.* iii. p. 37; *Kurz in Journ. Bot.* 1873, p. 193.

YUNNAN (*Anderson* ex *Kurz*).

Eastern India, in the Khasia and Mishmi Hills.

1. **Thysanospermum diffusum,** *Champ. in Hook. Kew Journ. Bot.* iv. p. 168; *Walp. Ann.* v. p. 118; *Benth. Fl. Hongk.* p. 146; *S. Moore in Journ. Bot.* 1875, p. 231.

KIANGSI: Kiukiang (*Shearer*!); FORMOSA: North-east (*Wilford*, 525!); HONGKONG (*Champion*! *Wright*! *Ford*!). Mus. Brit.; Herb. Kew.

## 68. RUBIACEÆ: RONDELETIEÆ.

1. **Wendlandia glabrata,** *DC. Prodr.* iv. p. 411; *Hook. f. Fl. Brit. Ind.* iii. p. 39; *Maxim. in Mél. Biol.* xi. p. 777; *Engl. et Maxim. in Engl. Jahrb.* vi. p. 67.

FORMOSA: Tamsui (*Oldham*, 227!); YUNNAN: Poneshee (*Anderson*!); LUCHU ARCHIPELAGO (*Döderlein* ex *Engler*). Mus. Brit.; Herb. Kew.

Western peninsula of India, Malayan peninsula and archipelago.

2. **Wendlandia Henryi**, *Oliv. in Hook. Ic. Pl.* xviii. t. 1712.

Hedyotis longidens, *Hance in Journ. Bot.* 1882, p. 289.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*! *Watters*, hb. *Hance*, 21721!); SZECHUEN: Chungking and elsewhere (*Faber*!). Mus. Brit.; Herb. Kew.

3. **Wendlandia paniculata**, *DC. Prodr.* iv. p. 411; *Hook. f. Fl. Brit. Ind.* iii. p. 39.

Wendlandia uvariifolia, *Hance in Journ. Bot.* 1870, p. 73; *Maxim. in Mél. Biol.* xi. p. 776.

KWANGTUNG: along the West river (*Sampson*, hb. *Hance*, 15587!); KWANGSI: about 100 miles from Pakhoi (*Playfair*!); HAINAN (*B. C. Henry*!). Mus. Brit.; Herb. Kew.

Eastern India and Malaya.

## 68. RUBIACEÆ: HEDYOTIDEÆ.

1. **Dentella repens**, *Forst. Gen.* p. 26, t. 13; *DC. Prodr.* iv. p. 419; *Hook. f. Fl. Brit. Ind.* iii. p. 42.

Oldenlandia repens, *Linn. Mant.* p. 40; *Lour. Fl. Cochinch.* p. 78.

KWANGTUNG: around Canton (ex *Loureiro*).

Widely spread in tropical Asia, and extending to Australia and the Philippine Islands. It is very probable that it occurs in South China, though we have seen no specimens, and Loureiro's is the only record of its being Chinese.

1. **Hedyotis acutangula**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 171; *Benth. Fl. Hongk.* p. 148; *Walp. Ann.* v. p. 116; *Seem. Bot. Voy. 'Herald,'* p. 382, t. 85; *Maxim. in Mél. Biol.* xi. p. 782.

Hedyotis Lawsoniæ, *Benth. in Hook. Lond. Journ. Bot.* i. p. 486, non *Wight et Arn.*

CHINA: without locality, probably Hongkong (*Fortune*, 75!); HONGKONG (*Champion*! *Hinds*! *Wilford*! *Wright*! *Seemann*!). Mus. Brit.; Herb. Kew.

Bentham records this from continental China, owing, probably, to Seemann's specimens being labelled "South China," like many of his other plants, though really collected in Hongkong. An imperfect specimen from Lofaushan, collected by Ford, may, however, be this species.

2. **Hedyotis ampliflora,** *Hance in Journ. Bot.* 1879, p. 11; *Maxim. in Mél. Biol.* xi. p. 783.

HAINAN: Hoihau (*Bullock*, hb. *Hance*, 20321!). Mus. Brit.

3. **Hedyotis Auricularia,** *Linn. Sp. Pl.* ed. 1, p. 101; *DC. Prodr.* iv. p. 420; *Benth. Fl. Hongk.* p. 150; *Hook. f. Fl. Brit. Ind.* iii. p. 58; *Maxim. in Mél. Biol.* xi. p. 783.

Hedyotis costata, *R. Br. in Wall. Cat.* n. 849; *G. Don, Gen. Syst.* iii. p. 526.

YUNNAN: Manwyne (*Anderson*!); KWANGTUNG: Tingushan (*Sampson*, hb. *Hance*, 13843!), Lofaushan, &c. (*Faber*! *Ford*! *Wenyon*!), Whampoa (*Hance*, 2130!); HONGKONG (*Wright*! *Harland*!). Mus. Brit.; Herb. Kew.

4. **Hedyotis bracteosa**, *Hance in Journ. Bot.* 1885, p. 323.

KWANGTUNG: Lofaushan (*Faber*, hb. *Hance*, 22223!). Mus. Brit.

5. **Hedyotis capitellata,** *Wall. Cat.* 837, *excl.* H. fruticosa, *hb. Rottler*, ex *Hook. f. Fl. Brit. Ind.* iii. p. 56.

Oldenlandia rubioides, *Miq. Fl. Ind. Bat.* ii. p. 353.

YUNNAN: Poneshee (*Anderson*!). Herb. Kew.

Malay peninsula and archipelago.

6. **Hedyotis capituligera,** *Hance in Journ. Bot.* 1879, p. 12; *Maxim. in Mél. Biol.* xi. p. 780.

KWANGTUNG: North river (*Sampson*, hb. *Hance*, 11402!). Mus. Brit.

7. **Hedyotis consanguinea,** *Hance in Ann. Sc. Nat.* 4me série, xviii. p. 221; *Maxim. in Mél. Biol.* xi. p. 782.

KWANGTUNG: Whampoa (*Hance*, 978!). Mus. Brit.; Herb. Kew.

Maximowicz, *loc. cit.*, suggests that this may be the same as the *Hedyotis fruticosa,* Linn. (Amœn. Acad. vii. p. 501), syn. *Spermacoce hedyotidea,* DC. (Prodr. iv. p. 555), a plant collected by Sparrman near Canton.

8. **Hedyotis effusa,** *Hance in Journ. Bot.* 1879, p. 11; *Maxim. in Mél. Biol.* xi. p. 783.

KWANGTUNG: West river, in woods above the Temple of Tingushan (*Sampson*, hb. *Hance*, 11230!). Mus. Brit.; Herb. Kew.

9. **Hedyotis hispida,** *Retz. Obs. Bot.* iv. p. 23; *DC. Prodr.* iv. p. 420; *Hook. f. Fl. Brit. Ind.* iii. p. 60; *Maxim. in Mél. Biol.* xi. p. 784.

Oldenlandia hispida, *Benth. Fl. Hongk.* p. 150.

KWANGTUNG (*Wennerberg* ex *Retzius*); HONGKONG (*Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

India and Malayan peninsula and archipelago.

10. **Hedyotis lancea,** *Thunb.* ex *Maxim. in Mél. Biol.* xi. p. 780.

KWANGTUNG: Macao (*Bladh* ex *Maximowicz*).

11. **Hedyotis loganioides,** *Benth. Fl. Hongk.* p. 149; *Maxim. in Mél. Biol.* xi. p. 783; *Henriq. in Bol. Soc. Brot.* iii. p. 148.

KWANGTUNG: Macao, frequent (*Silva* ex *Henriques*); HONGKONG (*Wright*! *Wilford*! *Ford*!). Mus. Brit.; Herb. Kew.

12. **Hedyotis macrostemon,** *Hook. et Arn. Bot. Beech. Voy.* p. 192; *Walp. Rep.* ii. p. 493.

Hedyotis recurva, *Benth. in Hook. Lond. Journ. Bot.* i. p. 486; *Hook. Kew Journ. Bot.* iv. p. 170; *Fl. Hongk.* p. 148; *Walp. Rep.* ii. p. 494; *Hance in Ann. Sc. Nat.* 4me série, xviii. p. 222; *Seem. Bot. Voy. 'Herald,'* p. 382, t. 84; *Miq. in Journ. de Bot. Néerl.* i. p. 108; *Maxim. in Mél. Biol.* xi. p. 778; *Henriq. in Bol. Soc. Brot.* iii. p. 148.

FOKIEN: Amoy (*Swinhoe*!); KWANGTUNG: Macao, &c. (*Millett*! *Beechey*! *Callery*! *Fortune*, 53! *Hance*, 9389! *Vachell*!), Lofaushan (*Ford*!); HONGKONG (*Wright*! *Hinds*! *Champion*! *Wilford*!). Mus. Brit.; Herb. Kew.

13. **Hedyotis ovata,** *Thunb.* ex *Maxim. in Mél. Biol.* xi. p. 781.

HAINAN (*Swinhoe*! *Björkegren* ex *Maximowicz*). Herb. Kew.

The leaves of Swinhoe's specimen exceed the dimensions given by Maximowicz, though it otherwise agrees with the description.

14. **Hedyotis Parryi,** *Hance in Ann. Sc. Nat.* 4me série, xviii. p. 221; *Maxim. in Mél. Biol.* xi. p. 783.

KWANGTUNG: low hills near Canton (*Sampson*, hb. *Hance*, 7478!); Pakhoi (*Playfair*!). Mus. Brit.; Herb. Kew.

15. **Hedyotis pinifolia**, *Wall. Cat.* 850; *Hook. f. Fl. Brit. Ind.* iii. p. 60; *Maxim. in Mél. Biol.* xi. p. 784.

KWANGTUNG: hills near Canton (*Hance*!), Macao (*Bladh* ex *Maximowicz*). Herb. Kew.

Eastern India, Malayan peninsula and archipelago.

16. **Hedyotis tenelliflora**, *Blume, Bijdr.* p. 971; *Hook. f. Fl. Brit. Ind.* iii. p. 60; *Maxim. in Mél. Biol.* xi. p. 784.

Oldenlandia angustifolia, *Benth. Fl. Hongk.* p. 151; *Henriq. in Bol. Soc. Brot.* iii. p. 148.

Hedyotis angustifolia, *Cham. et Schl. in Linnæa*, iv. p. 153; *DC. Prodr.* iv. p. 419; *Hook. et Arn. Bot. Beech. Voy.* p. 192.

Scleromitrion angustifolium, *Benth. in Hook. Kew Journ. Bot.* iv. p. 172; *Miq. in Journ. de Bot. Néerl.* i. p. 108,

SZECHUEN: Chungking (*Faber*!); KWANGTUNG: Lofaushan (*Ford*!), Macao (*Vachell*!); HONGKONG (*Wright*! *Champion*!). Mus. Brit.; Herb. Kew.

Eastern India, Malay peninsula and archipelago, and the Philippine Islands.

[*Scleromitrion sinense*, Miquel (in Journ. de Bot. Néerl. i. p. 108), collected by Krone in Kwangtung, we have not succeeded in identifying, but it is most likely a species of *Hedyotis*.]

17. **Hedyotis tenuipes**, *Hemsl.*, n. sp.

*Herba* præter corollam undique glaberrima, diffusa vel vagans, caulibus vel ramis elongatis teretibus. *Folia* breviter petiolata vel subsessilia, crassiuscula, anguste lanceolata, 1–2½ poll. longa, longe acuminata, acutissima, basi cuneata, lævia, venis primariis lateralibus utrinque sæpius 3 inconspicuis; stipulæ integræ, breves, latæ, breviter acuminatæ. *Flores* numerosi, laxe paniculati, paniculis trichotomis axillaribus terminalibusque folia æquantibus vel superantibus; bracteolæ parvæ, angustissimæ; pedicelli graciles, calyce duplo longiores; calycis dentes subcarnosi, angustissimi; corolla alte 4-lobata, vix rotata, lobis lanceolatis obtusiusculis intus infra apicem barbatis; ovarium glabrum, 2-loculare, multiovulatum, stylo crasso exserto vix capitato. *Capsulam* maturam non vidi.

FOKIEN: Amoy interior (*Swinhoe*!); KWANGTUNG: without locality (*Ford*, 98!). Herb. Kew.

A very distinct species with a loose inflorescence similar to *H. effusa*, Hance, and flowers like those of *H. recurva*, Benth.

18. **Hedyotis uncinella**, *Hook. et Arn. Bot. Beech. Voy.* p. 192; *Walp. Rep.* ii. p. 493; *Benth. Fl. Hongk.* p. 149; *Maxim. in Mél. Biol.* xi. p. 780; *Hook. f. Fl. Brit. Ind.* iii. p. 56.

Hedyotis borrerioides, *Champ. in Hook. Kew Journ. Bot.* iv. p. 171.

Hedyotis cephalophora, *R. Br. in Wall. Cat.* n. 842.

KWANGTUNG (*Millett! Ford!*), Putoy Island (*Wright!*), near Canton (*Hance!*), Pakhoi (*Playfair!*); HONGKONG (*Champion!*). Mus. Brit.; Herb. Kew.

Hills of Eastern India.

19. **Hedyotis Vachellii**, *Hook. et Arn. Bot. Beech. Voy.* p. 194; *Benth. Fl. Hongk.* p. 148; *Max. in Mél. Biol.* xi. p. 783.

KWANGTUNG: Macao (*Vachell* ex *Hooker & Arnott*), White Cloud Hills (*Sampson!*); HONGKONG (*Harland?* ex *Bentham*). Mus. Brit.; Herb. Kew.

There is no authenticated specimen of this species in the Kew Herbarium or at the British Museum (either as described by Hooker and Arnott or Bentham, and both parties described a species independently under this name), and we doubt, from the description, whether the plants referred hither by Hance and Maximowicz are the same as the original *H. Vachellii.*

20. **Hedyotis xanthochroa**, *Hance in Journ. Bot.* 1885, p. 324.

KWANGTUNG: Lofaushan at 3400 feet (*Ford!*). Mus. Brit.; Herb. Kew.

21. **Hedyotis**, sp.?, foliis parvis ovato-oblongis, floribus axillaribus solitariis, brevissime pedunculatis, calycis lobis amplis strigillosis, corollæ lobis 4-valvatis extus strigillosis, ovulis numerosis.

KIANGSI: Kiukiang (*Shearer!*); FOKIEN: Foochow (*Carles!*). Herb. Kew.

We have only seen imperfect flowering specimens of this somewhat anomalous plant.

1. **Oldenlandia alata,** *Hook. f. Fl. Brit. Ind.* iii. p. 70; *Hance in Journ. Bot.* 1878, p. 12; *Maxim. in Mél. Biol.* xi. p. 785.

Hedyotis alata, *Kœn. in Wall. Cat.* n. 6196; *Wight et Arn. Prod. Fl. Penins. Ind. Or.* p. 413.

Oldenlandia pterita, *Miq. Fl. Ind. Bat.* ii. p. 193.

Hedyotis pterita, *Blume, Bijdr.* p. 972.

Gonotheca Blumei, *DC. Prodr.* iv. p. 429; *Endl. Atakta,* t. 22.

KWANGTUNG: Tingushan (*Sampson,* hb. *Hance,* 13826!). Mus. Brit.; Herb. Kew.

Western peninsula of India and Malay archipelago.

2. **Oldenlandia corymbosa,** *Linn. Sp. Pl.* ed. 1, p. 119; *DC. Prodr.* iii. p. 426; *Hook. f. Fl. Brit. Ind.* iii. p. 64; *Maxim. in Mél. Biol.* xi. p. 786.

Oldenlandia herbacea, *DC. Prodr.* iv. p. 425; *Benth. Fl. Hongk.* p. 151, excl. var. *a,* ex *Maxim.*

Hedyotis herbacea, *Osbeck, Voy.,* Engl. ed. ii. p. 4? ex *Maxim.*

FOKIEN: Amoy (*Hance,* 1460!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Wright*! *Wilford*! *Champion*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia, and also in Africa and America.

3. **Oldenlandia diffusa,** *Roxb. Fl. Ind.* i. p. 426; *DC. Prodr.* iv. p. 426; *Hook. f. Fl. Brit. Ind.* iii. p. 65; *Maxim. in Mél. Biol.* xi. p. 787.

Oldenlandia angustifolia, var. pedicellata, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 108, ex *Maxim.*

Oldenlandia herbacea, var. *a,* uniflora, *Benth. Fl. Hongk.* p. 151.

KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Wright*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia, and extending northward to Japan.

4. **Oldenlandia paniculata,** *Linn. Sp. Pl.* ed. 2, p. 1667; *DC. Prodr.* iv. p. 427; *Hook. f. Fl. Brit. Ind.* iii. p. 69; *Benth. Fl. Hongk.* p. 152; *Maxim. in Mél. Biol.* xi. p. 785.

KIANGSU: Shanghai (*Maingay*!); HONGKONG (*Wright*! *Lamont*!). Mus. Brit.; Herb. Kew.

Nearly all over India and Malaya, and extending to Polynesia.

[*Oldenlandia umbellata* (Osbeck's Voyage, Engl. ed. i. p. 386) is not described, and there are no means of determining what plant was intended.]

1. **Anotis boerhaavioides,** *Maxim. in Mél. Biol.* xi. p. 787.

Hedyotis (Oldenlandia) boerhaavioides, *Hance in Journ. Bot.* 1870, p. 73.

CHEKIANG: Ningpo (*Faber*!); KWANGTUNG: White Cloud hills (*Sampson,* 1230! *Hance,* 15133!). Mus. Brit.; Herb. Kew.

2. **Anotis Thwaitesiana**, *Maxim. in Mél. Biol.* xi. p. 787.

Hedyotis (§ Oldenlandia) Thwaitesiana, *Hance in Journ. Bot.* 1868, p. 298.

KWANGTUNG: West river (*Sampson*, hb. *Hance*, 13755 !). Mus. Brit.; Herb. Kew.

1. **Ophiorrhiza cantonensis**, *Hance in Ann. Sc. Nat.* 4me série, xviii. p. 222.

HUPEH: Ichang gorge (*Maries* !), Ichang, Nanto and neighbourhood (*A. Henry*, 806, 809, 1255, 2996, 3248, 3577 !); KWANGTUNG: Tingushan (*Sampson*, hb. *Hance*, 9012 !); HAINAN (*B. C. Henry* !). Mus. Brit.; Herb. Kew.

2. **Ophiorrhiza japonica**, *Blume, Bijdr.* p. 978; *DC. Prodr.* iv. p. 415; *Hance in Ann. Sc. Nat.* 4me série, xv. p. 224, et 5me série, v. p. 217, et *in Journ. Linn. Soc.* xiii. p. 105, et *in Journ. Bot.* 1870, p. 276; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 26.

Ophiorrhiza Eyrei, *Champ. in Hook. Kew Journ. Bot.* iv. p. 170; *Benth. Fl. Hongk.* p. 147; *Walp. Ann.* v. p. 117.

CHINA: without locality (*Fortune*, 3 !); CHEKIANG: Ningpo (*Hancock* !): KIANGSI: Kiukiang (*Shearer* ! *Faber* !); FOKIEN (*De Grijs*, hb. *Hance*, 6691 !); FORMOSA: Tamsui (*Oldham*, 222 ! *Swinhoe* !); SZECHUEN: Omei, 3500 feet (*Faber* !); HONGKONG (*Champion* ! *Wilford* ! *Ford* !). Mus. Brit.; Herb. Kew.

Japan.

Var.? omnibus partibus minoribus, alabastris tantum adsunt.

HUPEH: Patung district (*A. Henry*, 3692 !). Herb. Kew.

This is similar to *O. pumila*, Champ., but the leaves are reddish instead of pallid beneath, and the flowers are too young for comparison.

3. **Ophiorrhiza pumila**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 169; *Benth. Fl. Hongk.* p. 147; *Walp. Ann.* v. p. 117.

KWANGTUNG: Lofaushan (*Ford* !); HONGKONG (*Champion* ! *Wright* !). Mus. Brit.; Herb. Kew.

## 68. RUBIACEÆ: MUSSÆNDEÆ.

1. **Mussænda erosa**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 193; *Benth. Fl. Hongk.* p. 153; *Walp. Ann.* v. p. 136; *Henriq. in Bol. Soc. Brot.* iii. p. 148.

SZECHUEN: Min river (*Faber* !); KWANGTUNG: Tingushan

(*Ford*!); HONGKONG (*Champion*! *Wright*! *Wilford*! *Urquhart*!). Mus. Brit.; Herb. Kew.

[*Mussænda chinensis*, Lour. (Fl. Cochinch. p. 152; DC. Prodr. iv. p. 373), is evidently not a species of this genus, but it has not been identified.]

2. **Mussænda frondosa**, *Linn. Sp. Pl.* ed. 1, p. 177; *DC. Prodr.* iv. p. 370; *Hook. f. Fl. Brit. Ind.* iii. p. 89.

KWANGTUNG: West river (*Ford*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Throughout tropical India and the Malay archipelago.

3. **Mussænda glabra**, *Hook. et Arn. Bot. Beech. Voy.* p. 264, non *Vahl.*

FORMOSA: north-west (*Perry*!), Tamsui (*Oldham*, 214, 230); LUCHU ARCHIPELAGO (*Beechey*!). Mus. Brit.; Herb. Kew.

We have not given this a new name because the material is hardly sufficient for satisfactory description in this difficult genus; and it is not quite beyond doubt that the Formosa and Luchu specimens belong to the same species.

4. **Mussænda hirsutula**, *Miq. in Journ. de Bot. Néerl.* i. p. 109.

KWANGTUNG: Luheang (*Krone* ex *Miquel*).

Miquel adduces characters in which he states this differs from *M. frondosa*, *pubescens*, and *erosa*; yet it is probably a variety of one of them, as they are very variable.

5. **Mussænda pubescens**, *Ait. f. Hort. Kew.* ed. 2, i. p. 372; *DC. Prodr.* iv. p. 371; *Benth. Fl. Hongk.* p. 153; *Henriq. in Bol. Soc. Brot.* iii. p. 148.

CHINA: without locality (*Fortune*, 80!); FORMOSA: south-west (*Swinhoe*!); HUPEH: Ichang, Nanto and neighbourhood (*A. Henry*, 2703, 3118!); SZECHUEN: Omei, 3500 feet (*Faber*, 642!), Min river (*Faber*, 263!); KWANGTUNG: Macao (*Silva* ex *Henriques*); HONGKONG (*Champion*! *Hinds*! *Wright*! *Wilford*!); HAINAN: Hoihow (*Hancock*!). Mus. Brit.; Herb. Kew.

1. **Adenosacme longifolia**, *Wall. Cat.* 6280; *Kurz, For. Fl. Burm.* ii. p. 160; *Hook. f. Fl. Brit. Ind.* iii. p. 95, var. **sinensis**, *Hemsl.*; fere glabra, foliis subtus pallidis.

FOKIEN: Amoy (*Swinhoe*!); KWANGTUNG: Lofaushan and other localities (*Ford*, 354!). Herb. Kew.

Very common in Eastern India and Malaya.

The Chinese specimens are rather different in aspect from the Indian, but we have failed to detect any characters to separate them specifically.

1. **Myrioneuron Faberii**, *Hemsl.*, n. sp.

*Frutex*, ut videtur, humilis, glabrescens, ramulis crassiusculis mollibus. *Folia* petiolata, permembranacea, lanceolata, 4–8 poll. longa, acutissima, basi longe attenuata, supra glabra, nitida, subtus, præcipue in venis, puberula, venis lateralibus primariis utrinque circiter 10 subtus elevatis, petiolo gracili; stipulæ semipollicares, oblongæ, acutæ. *Flores* in fasciculos terminales densos bracteatos brevissime pedunculatos aggregati, bracteis foliaceis flores subæquantibus; calycis segmenta elongata, subulata, nec rigida, quam corolla paullo breviora; corolla cylindrica, circiter semipollicaris, extus glabra, intus villosissima, lobis brevibus; stamina dimorpha, nunc basi nunc fauci corollæ tubi inserta; ovarium 2-loculare, loculis multiovulatis; stylus alte bifidus nunc brevis nunc exsertus. *Capsula* matura non visa.

SZECHUEN: Mount Omei, 3500 feet (*Faber*!). Herb. Kew.

Resembles *M. nutans*, Wall., but differs in having fewer lateral veins in the leaves, larger flowers, scarcely rigid calyx-lobes, and corolla glabrous outside.

The dimorphism of the sexual organs of this plant is of the same kind as that described and figured by Mr. C. B. Clarke in the Journal of the Linnean Society (xvii. p. 159), as observed by him in the allied genus *Adenosacme*.

## 68. RUBIACEÆ: GARDENIEÆ.

1. **Webera attenuata**, *Hook. f. Fl. Brit. Ind.* iii. p. 104; *Maxim. in Mél. Biol.* xi. p. 788.

Stylocoryne attenuata, *Voigt, Hort. Calc.* p. 377.

Stylocoryne Webera, *A. Rich. in Mém. Soc. Hist. Nat. Par.* v. p. 248, partim; *Benth. Fl. Hongk.* p. 156.

Cupia corymbosa, *Hook. et Arn. Bot. Beech. Voy.* p. 192, non *DC.*, non *Hook. et Arn.* p. 264.

CHINA: without locality (*Beechey*!); HONGKONG (*Champion*! *Wright*!). Herb. Kew.

Hance (Journ. Linn. Soc. xiii. p. 105) states that Dr. Hooker had informed him by letter that two distinct species had been confused under the name *Stylocoryne Webera* in the 'Flora Hongkongensis'; but this seems to have been a mistake for Hooker and Arnott's 'Botany of Beechey's Voyage,' the plant described at p. 162 being the present species, and that from Bonin, mentioned at p. 264, being *Stylocoryne subsessilis*, A. Gray.

2. **Webera mollissima**, *Benth.* ex *Hance in Journ. Linn. Soc.* xiii. p. 105; *Maxim. in Mél. Biol.* xi. p. 789.

Stylocoryne mollissima, *Walp. Rep.* ii. p. 517; *Benth. Fl. Hongk.* p. 156.

Cupia mollissima, *Hook. et Arn. Bot. Beech. Voy.* p. 192.

CHINA: without locality (*Millett*! *Fortune*, 83!); HONGKONG (*Wright*! *Champion*!). Mus. Brit.; Herb. Kew.

1. **Randia accedens**, *Hance in Ann. Sc. Nat.* 5me série, v. p. 218; *Maxim. in Mél. Biol.* xi. p. 791.

KWANGTUNG: without locality (*Wenyon*!), Pakhoi (*Playfair*! *Perry*!), Macao (*Hance*, 10137! *Tate*!); HAINAN: Hoihow (*Hancock*!). Mus. Brit.; Herb. Kew.

2. **Randia canthioides**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 194; *Benth. Fl. Hongk.* p. 155; *Maxim. in Mél. Biol.* xi. p. 791.

KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wright*! *Wilford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

3. **Randia densiflora**, *Benth. Fl. Hongk.* p. 155; *Maxim. in Mél. Biol.* xi. p. 791; *Hook. f. Fl. Brit. Ind.* iii. p. 112.

HONGKONG: a fragment bearing two imperfect leaves and a few young flowers (*Champion*!). Herb. Kew.

Widely spread in Eastern India, the Malay peninsula and archipelago, and extending to North Australia.

4. **Randia dumetorum**, *Lam. Ill.* t. 156. f. 4; *DC. Prodr.* iv. p. 385; *Benth. Fl. Hongk.* p. 154; *Hook. f. Fl. Brit. Ind.* iii. p. 110; *Maxim. in Mél. Biol.* xi. p. 791.

Canthium chinense, *Pers. Syn. Pl.* i. p. 200; *DC. Prodr.* iv. p. 475.

FORMOSA: Tamsui (*Oldham*, 228! *Watters*!); KWANGTUNG:

French Island, Whampoa (*Hance*, 5826 !); HONGKONG (*Champion* ! *Wright* !). Mus. Brit.; Herb. Kew.

Widely spread in India and Malaya, and also found in E. tropical Africa.

5. **Randia leucocarpa**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 194; *Benth. Fl. Hongk.* p. 154; *Maxim. in Mél. Biol.* xi. p. 790.

HONGKONG (*Champion* ! *Wright* !). Mus. Brit.; Herb. Kew.

6. **Randia racemosa**, *Maxim. in Mél. Biol.* xi. p. 790.

Stylocoryne racemosa, *Cav. Ic. Pl.* iv. p. 45, t. 368; *DC. Prodr.* iv. p. 377; *Hook. et Arn. Bot. Beech. Voy.* p. 264.

LUCHU ARCHIPELAGO (ex *Hooker et Arnott*).

Philippine Islands.

7. **Randia sinensis**, *Rœm. et Schult. Syst. Veg.* v. p. 248; *DC. Prodr.* iv. p. 388; *Hook. et Arn. Bot. Beech. Voy.* p. 191; *Benth. Fl. Hongk.* p. 155; *Maxim. in. Mél. Biol.* xi. p. 791; *Miq. in Journ. de Bot. Néerl.* i. p. 109.

Oxyceros sinensis, *Lour. Fl. Cochinch.* p. 151.

KWANGTUNG: near Canton (*Hance*, 10224 !); HONGKONG (*Champion* ! *Wright* !). Mus. Brit.; Herb. Kew.

8. **Randia Wallichii**, *Hook. f. Fl. Brit. Ind.* iii. p. 113; *Maxim. in Mél. Biol.* xi. p. 791.

YUNNAN (*Anderson* !). Herb. Kew.

Eastern India, Tenasserim, and Java.

1. **Gardenia florida**, *Linn. Sp. Pl.* ed. 2, p. 1679; *DC. Prodr.* iv. p. 379; *Benth. Fl. Hongk.* p. 153; *Hook. et Arn. Bot. Beech. Voy.* p. 191; *Kurz in Journ. Bot.* 1873, p. 193; *Maxim. in Mél. Biol.* xi. p. 792; *Bot. Reg.* t. 449; *Bot. Mag.* t. 3349; *Bot. Reg.* 1846, t. 43 (var. Fortuniana).

Gardenia radicans, *Thunb. Fl. Jap.* p. 109, t. 20; *DC. Prodr.* iv. p. 379; *Hook. et Arn. Bot. Beech. Voy.* p. 264; *Maxim. in Mél. Biol.* xi. p. 793; *Bog. Reg.* t. 73; *Bot. Rep.* t. 491.

Gardenia grandiflora, *Sieb.* ex *Sieb. et Zucc. Fl. Jap. Fam. Nat.* n. 604.

Gardenia pictorum, *Hassk. in Flora*, xxviii. p. 234; *Walp. Rep.* vi. p. 73.

Gardenia Maruba, *Sieb. in Blume Bijdr.* p. 1015; *Franch. et Sav. Enum. Pl. Jap.* i. p. 208.

SOUTH CHINA: without locality (*Beechey* ! *Millett* !); FOKIEN:

Amoy (*Fortune*, A 96!); FORMOSA: Kelung (*Oldham*, 221!); HUPEH: Ichang, cult. (*A. Henry*!); SZECHUEN: Chungching (*Bourne*!); KWANGTUNG (*Ford*!); HONGKONG (*Wright*! *Champion*! *Urquhart*!); LUCHU ARCHIPELAGO (*Beechey*!). Mus. Brit.; Herb. Kew.

Japan and Bonin Islands.

We find it impossible to sort the herbarium specimens into the various species proposed by different authors, and we are only following Lindley (Bot. Reg. 1846, sub t. 43) in uniting *G. radicans* with *G. florida.* Maximowicz alludes to the insufficient characters to distinguish them, and Franchet suggests that they should be united.

[*Gardenia amœna*, Sims (Bot. Mag. t. 1904; DC. Prodr. iv. p. 382; Bot. Reg. t. 735), is unlike anything we have seen from China, and may be a *Randia*. *G. scandens*, Thunb., syn. *G. jasminoides* (ex DC. Prodr. iv. p. 383), and *G. volubilis*, Lour. (Fl. Cochinch. p. 148), are doubtful plants.]

[*Genipa flava*, Lour. (Fl. Cochinch. p. 149; DC. Prodr. iv. p. 379), is also an obscure plant.]

1. **Diplospora fruticosa**, *Hemsl.*, n. sp.

*Frutex* 4-pedalis, floribus albis (*A. Henry*), ramis gracilibus junioribus pubescentibus. *Folia* breviter petiolata, papyracea, ovato-oblonga, 3–5 poll. longa, obtuse acuminata, primum utrinque strigillosa, demum fere glabrescentia, venis lateralibus primariis utrinque circiter 8 subtus elevatis; stipulæ latæ, connatæ, apiculatæ. *Flores* fasciculati, brevissime pedicellati, 3–4 lineas diametro; calycis pubescenti limbus cupulatus, obscure dentatus; corolla intus extroque glabra, tubo brevi, lobis latis rotundatis; stamina exserta; ovarii loculi 2–3-ovulati. *Fructus* ignotus.

SZECHUEN: Ichang and immediate neighbourhood (*A. Henry*!). Herb. Kew.

This strongly resembles *D. pubescens*, Hook. f., a native of Tenasserim, but the stipules are very different and the corolla is quite glabrous.

2. **Diplospora viridiflora**, *DC. Prodr.* iv. p. 477; *Benth. in Hook. Kew Journ. Bot.* iv. p. 195, et *Fl. Hongk.* p. 157; *Seem. Bot. Voy. 'Herald,'* p. 382.

Canthium dubium, *Lindl. Bot. Reg.* t. 1026.
Gardenia daphnoides, *Hance, in Walp. Ann.* ii. p. 796.

KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Wilford*! *Champion*! *Wright*! *Seemann*!). Mus. Brit.; Herb. Kew.

3. **Diplospora**, sp.?

SZECHUEN: Mount Omei, 3000 feet (*Faber*, 194!). Herb. Kew.

There is only an imperfect specimen bearing old fruit and very young flower-buds.

## 68. RUBIACEÆ; GUETTARDEÆ.

1. **Guettarda speciosa**, *Linn. Sp. Pl.* ed. 1, p. 991; *DC. Prodr.* iv. p. 455; *Hook. f. Fl. Brit. Ind.* iii. p. 126; *Hemsl. Bot. 'Challenger' Exped.* i. 3, p. 240; *Wight, Ic. Pl. Ind. Or.* t. 40.

PRATAS ISLAND (*Wilford*!). Herb. Kew.

Common on the shores of tropical Asia, East Africa, North-east Australia, and throughout Polynesia.

1. **Antirrhœa chinensis**, *Benth. et Hook. Gen. Pl.* ii. p. 100.
Guetardella chinensis, *Champ. in Hook. Kew Journ. Bot.* iv. p. 197; *Benth. Fl. Hongk.* p. 158; *Walp. Ann.* v. p. 113.

HONGKONG (*Wright*! *Champion*! *Hance*, 10144!). Mus. Brit.; Herb. Kew.

## 68. RUBIACEÆ: KNOXIEÆ.

1. **Knoxia corymbosa**, *Willd. Sp. Pl.* i. p. 582; *Benth. Fl. Hongk.* p. 164; *Hook. f. Fl. Brit. Ind.* iii. p. 128; *Wight, Ic. Pl. Ind. Or.* t. 128.

SOUTH CHINA: without locality (*Fortune*, 52!); HUPEH: Ichang (*A. Henry*, 600!); KWANGTUNG: (*Ford*!), island of Wongman (*Sampson*!); HONGKONG (*Wright*! *Champion*!). Mus. Brit.; Herb. Kew.

India, Malaya, and North Australia.

## 68. RUBIACEÆ: VANGUERIEÆ.

1. **Canthium didymum**, *Gærtn. Fruct.* iii. p. 94, t. 196; *DC. Prodr.* iv. p. 473; *Benth. Fl. Hongk.* p. 159; *Hook. f. Fl. Brit. Ind.* iii. p. 132.

Plectronia didyma, *Kurz, Forest Fl. Brit. Burm.* ii. p. 35.

Canthium undulatum, *Champ. in Hook. Kew Journ. Bot.* iv. p. 198; *Walp. Ann.* v. p. 112.

HONGKONG (*Wright*! *Champion*!). Herb. Kew.

Widely spread in India and Malaya.

2. **Canthium parvifolium,** *Roxb. Fl. Ind.* i. p. 534; *DC. Prodr.* iv. p. 474; *Hook. f. Fl. Brit. Ind.* iii. p. 135.

Plectronia parvifolia, *Kurz, Forest Fl. Brit. Burm.* ii. p. 36.

Canthium horridum, *Benth. Fl. Hongk.* p. 159, non *Blume.*

KWANGTUNG: hills near Sainam on the North river (*Sampson & Hance*, 13765!); HONGKONG (*Wright*!). Mus. Brit.; Herb. Kew.

Eastern India and Malaya.

## 68. RUBIACEÆ: IXOREÆ.

1. **Ixora chinensis,** *Lam. Encycl.* iii. p. 344 (1789).

Ixora crocata, *Lindl. Bot. Reg.* t. 782 (1824); *DC. Prodr.* iv. p. 486.

Ixora stricta, *Roxb. Hort. Beng.* p. 10 (1814); *Fl. Ind., Carey & Wall.* ed. i. p. 388 (1820); *DC. Prodr.* iv. p. 486; *Hook. et Arn. Bot. Beech. Voy.* p. 193; *Benth. Fl. Hongk.* p. 158; *Hook. f. Fl. Brit. Ind.* iii. p. 145; *Maxim. in Mél. Biol.* xi. p. 794; *Henriq. in Bol. Soc. Brot.* iii. p. 148.

Ixora coccinea, *Curt. Bot. Mag.* t. 169, non *Linn.*

Ixora blanda, *Ker in Bot. Reg.* t. 100; *DC. Prodr.* iv. p. 487.

Ixora rosea, *Sims in Bot. Mag.* t. 2428, non *Wall.*

FOKIEN: Amoy (*Swinhoe*!); FORMOSA (*Oldham*, 220!); KWANGTUNG: Macao (*Millett*! *Maingay*!); HONGKONG (*Wright*! *Hinds*! *Champion*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

Malayan peninsula and archipelago.

[*Pavetta sinica* and *Pavetta Kroneana*, Miq. (in Journ. de Bot. Néerl. i. p. 107), may belong here. They were collected by Krone in the province of Kwangtung, and are described as being most nearly allied to *Pavetta* (*Ixora*) *Brunonis*, Wall., and *Pavetta* (*Ixora*) *stricta*, Roxb., respectively.]

[*Ixora grandiflora*, Ker (Bot. Reg. t. 154), one of the synonyms of *I. coccinea*, Linn., is recorded from China (DC. Prodr. iv. p. 486), but we have seen no Chinese specimens referable to this species.]

1. **Pavetta indica,** *Linn. Sp. Pl.* ed. 1, p. 110; *DC. Prodr.* iv. p. 490; *Hook. et Arn. Bot. Beech. Voy.* p. 193; *Hook. f. Fl. Brit. Ind.* iii. p. 150; *Maxim. in Mél. Biol.* xi. p. 794; *Wight, Ic. Pl. Ind. Or.* t. 148.

Ixora Pavetta, *Roxb. Fl. Ind.* i. p. 385; *Hance in Journ. Linn. Soc.* xiii. p. 106.

KWANGTUNG: Macao (*Millett*! *Callèry*!); HONGKONG (*Wright*! *Urquhart*! *Champion*! *Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

India, Malaya, and North Australia.

[*Pavetta arenosa,* Lour. (Fl. Cochinch. p. 73; DC. Prodr. iv. p. 493), from Canton, is an obscure plant, probably not of this genus.]

## 68. RUBIACEÆ: MORINDEÆ.

1. **Morinda citrifolia,** *Linn. Sp. Pl.* ed. 1, p. 176; *DC. Prodr.* iv. p. 446; *Hemsl. Bot. 'Challenger' Exped.* i. 3, p. 158; *Hook. f. Fl. Brit. Ind.* iii. p. 155.

PRATAS ISLAND (*Wilford*!). Herb. Kew.

Tropical Asia, E. Africa, Polynesia, and North Australia, chiefly in maritime districts.

2. **Morinda umbellata,** *Linn. Sp. Pl.* ed. 1, p. 176; *DC. Prodr.* iv. p. 449; *Benth. Fl. Hongk.* p. 159; *Hook. f. Fl. Brit. Ind.* iii. p. 157; *Maxim. in Mél. Biol.* xi. p. 795.

FORMOSA (*Oldham*, 219!); KWANGTUNG: Pakhoi (*Playfair*!), Lofaushan (*Ford*!); HONGKONG (*Wilford*! *Wright*! *Urquhart*! *Champion*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia, and extending to Japan and North Australia.

3. **Morinda villosa,** *Hook. f. Fl. Brit. Ind.* iii. p. 158; *Hance in Journ. Bot.* 1885, p. 324.

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

Khasia mountains, Eastern India.

1. **Damnacanthus indicus,** *Gærtn. f. Fruct.* iii. p. 18, t. 182; *DC. Prodr.* iv. p. 473; *S. Moore in Journ. Bot.* 1875, p. 231; *Hook. f. Fl. Brit. Ind.* iii. p. 158; *Maxim. in Mél. Biol.* xi. p. 795.

Damnacanthus major, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* n. 598; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 110; *Maxim. in Mél. Biol.* xi. p. 796.

Damnacanthus macrophyllus, *Sieb.* ex *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 110.

KIANGSI: Kiukiang (*Shearer*! *Faber*!); HUPEH: Nanto and neighbourhood (*A. Henry*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Eastern India and Japan.

Maximowicz retains *D. major* as a distinct species, mentioning, however, that it scarcely differs except in size, though he had seen no intermediate forms. There is a Japanese specimen in the Kew Herbarium, collected by Maries, which connects the two.

## 68. RUBIACEÆ: PSYCHOTRIEÆ.

1. **Psychotria elliptica,** *Ker in Bot. Reg.* t. 607; *DC. Prodr.* iv. p. 509; *Benth. Fl. Hongk.* p. 161; *Maxim. in Mél. Biol.* xi. p. 797; *Engl. et Maxim. in Engl. Jahrb.* vi. p. 67.

Psychotria Reevesii, *Wall. in Roxb. Fl. Ind.* ii. p. 104; *DC. Prodr.* iv. p. 519.

Grumilea Reevesii, *Hook. et Arn. Bot. Beech. Voy.* p. 193.

CHINA: without locality (*Staunton*! *Parkes*!); FORMOSA: Tamsui and elsewhere (*Oldham*, 216, 229! *Maries*!); KWANGTUNG: Whampoa (*Hance*!), Lofaushan (*Ford*!), Macao (*Calléry*); HONGKONG (*Wright*! *Wilford*! *Champion*!); HAINAN (*Swinhoe*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

2. **Psychotria serpens,** *Linn. Mant.* p. 204; *DC. Prodr.* iv. p. 519; *Benth. Fl. Hongk.* p. 161; *Maxim. in Mél. Biol.* xi. p. 796; *Engl. et Maxim. in Engl. Jahrb.* vi. p. 67.

Psychotria scandens, *Hook. et Arn. Bot. Beech. Voy.* p. 193; *Walp. Rep.* ii. p. 471.

FOKIEN: Foochow (*Carles*!); FORMOSA: Tamsui (*Oldham*, 219!); KWANGTUNG: Macao (*Callėry*), Lappas Island (*Millett*! *Vachell*!), Swatow (*Perry*!), Lofaushan (*Ford*!), Pakhoi (*Playfair*!); HONGKONG (*Wilford*! *Seemann*! *Hinds*! *Wright*! *Champion*!); LUCHU ARCHIPELAGO (*Beechey*! *Wright*!). COREA: hills near Pagoda Island (*Carles*!). Mus. Brit.; Herb. Kew.

There is a specimen of this species in the Kew Herbarium labelled "Fiji Islands, Wilkes's U.S. Exploring Expedition."

1. **Chasalia**? (specimen fructiferum).

KWANGTUNG: Lofaushan (*Ford*!). Herb. Kew.

1. **Geophila reniformis**, *D. Don, Prodr. Fl. Nep.* p. 136; *DC. Prodr.* iv. p. 537; *Hance in Journ. Bot.* 1878, p. 228; *Hook. f. Fl. Brit. Ind.* iii. p. 178; *Wight, Ic. Pl. Ind. Or.* t. 54.

KWANGTUNG: on the North river (*Sampson*, hb. *Hance*, 13736!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, America, Australia, and Polynesia.

1. **Lasianthus chinensis**, *Benth. Fl. Hongk.* p. 160; *Maxim. in Mél. Biol.* xi. p. 798; *Hook. f. Fl. Brit. Ind.* iii. p. 187.

Mephitidia chinensis, *Champ. in Hook. Kew Journ. Bot.* iv. p. 196; *Walp. Ann.* v. p. 113.

FORMOSA (*Oldham*, 218!); HONGKONG (*Wright*! *Hance*! *Wilford*! *Champion*!). Mus. Brit.; Herb. Kew.

Malacca.

2. **Lasianthus cyanocarpus**, *Jack in Trans. Linn. Soc.* xiv. p. 125; *Benth. Fl. Hongk.* p. 160; *Hook. f. Fl. Brit. Ind.* iii. p. 179; *Maxim. in Mél. Biol.* xi. p. 798.

Mephitidia cyanocarpa, *DC. Prodr.* iv. p. 452.

HONGKONG (*Wilford*! *Lamont*!). Mus. Brit.; Herb. Kew.

Eastern India, Malay peninsula and archipelago.

3. **Lasianthus Fordii**, *Hance in Journ. Bot.* 1885, p. 324.

KWANGTUNG: Lofaushan (*Ford*, 66!). Mus. Brit.; Herb. Kew.

Hance has confused this and our *L. trichophlebus* in his description; yet he does not appear to have retained a specimen of the latter. The present species is almost everywhere glabrous in the fruiting stage, except the teeth of the calyx, and the primary veins are usually five on each side of the midrib, rarely six.

4. **Lasianthus trichophlebus**, *Hemsl.*, n. sp.

*Rami* fructiferi plus minus strigillosi, teretes. *Folia* breviter petiolata, vix coriacea, oblonga, usque ad 6 poll. longa, breviter acuteque acuminata, subundulata, basi cuneata, supra glabra, nitida, subtus præcipue secus costam venasque strigillosa, venis primariis lateralibus utrinque 8–9 valde arcuatis, venis secundariis transversis crebris subparallelis; stipulæ angustæ, circiter 3–4

lin. longæ. *Flores* .... *Drupæ* in axillis foliorum confertissimæ, circiter $2\frac{1}{2}$ lineas diametro, omnino strigillosæ, dentibus calycinis elongatis densissime strigillosis coronatæ, 4–5 pyrenæ; semina non visa.

KWANGTUNG: Lofaushan (*Ford*, 113!). Herb. Kew.

This differs from *L. Fordii*, with which, from some oversight, Hance confused it, in the larger, less acuminate leaves with more numerous, strigillose, primary veins, and in the larger strigillose fruit. We have named and described this in the absence of flowers in consequence of this confusion.

There is an allied, probably undescribed species in the Kew Herbarium, from Mount Omei, Szechuen, collected by the Rev. E. Faber, with variegated leaves, but the specimen bears only very young fruit.

5. **Lasianthus Wallichii**, *Wight in Calc. Journ. Nat. Hist.* vi. p. 503; *Hook. f. Fl. Brit. Ind* iii. p. 180; *Maxim. in Mél. Biol.* xi. p. 797.

Mephitidia Wallichii, *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* p. 390.

Lasianthus plagiophyllus, *Hance in Journ. Bot.* 1875, p. 196.

FORMOSA: Tamsui (*Oldham*, 223!); HONGKONG (*Ford*!), Mus. Brit.; Herb. Kew.

Eastern India and Malaya.

6. **Lasianthus**, sp.

LUCHU ARCHIPELAGO (*Wright*, 128, 129!). Herb. Kew.

Imperfect specimens of a species which may be the same as that referred to by Engler (Jahrb. vi. p. 67) as near *L. japonicus*.

## 68. RUBIACEÆ: PÆDERIEÆ.

1. **Pæderia tomentosa**, *Blume, Bijdr.* p. 968; *DC. Prodr.* iv. p. 471; *Hook. f. Fl. Brit. Ind.* iii. p. 197; *Maxim. in Mél. Biol.* xi. p. 798.

Pæderia fœtida, *Thunb. Fl. Jap.* p. 106; *Hook. et Arn. Bot. Beech. Voy.* p. 194; *Benth. Fl. Hongk.* p. 162, non *Linn.*; *Hance in Journ. Bot.* 1874, p. 261.

Pæderia chinensis, *Hance in Journ. Bot.* 1878, p. 228, et 1879, p. 12; *Franchet, Pl. David.* p. 155.

KIANGSU: Shanghai (*Maingay*!); FORMOSA (*Wilford*, 505! *Oldham*, 215!); KIANGSI: Kiukiang (*David*, 807, ex *Franchet*);

HUPEH : Ichang, Nanto, and Patung (*A. Henry* !) ; KWANGTUNG : Macao (*Callèry* !); HONGKONG (*Hance* ! *Champion* !) ; LUCHU ARCHIPELAGO (*Wright* !). Mus. Brit. ; Herb. Kew.

Eastern India, Malay peninsula and archipelago, and Japan.

1. **Hamiltonia suaveolens,** *Roxb. Hort. Beng.* p. 15, et *Fl. Ind. Or.* i. p. 554 ; *DC. Prodr.* iv. p. 462 ; *Hook. f. Fl. Brit. Ind.* iii. p. 197.

Spermadictyon suaveolens, *Roxb. Corom. Pl.* t. 236 ; *Bot. Reg.* t. 348.

Spermadictyon azureum, *Wall. in Roxb. Fl. Ind., ed. Carey & Wall.* ii. p. 225 ; *Bot. Reg.* t. 1235.

CHINA : without locality (*Fortune*, 57 !). Herb. Kew.

Widely spread in North India, from Kashmir eastward.

Hooker, *loc. cit.*, suggests that this shrub may have been introduced into China.

1. **Leptodermis oblonga,** *Bunge, Enum. Pl. Chin. Bor.* p. 34 ; *Walp. Rep.* ii. p. 488 ; *Hance in Journ. Bot.* 1882, p. 290.

Hamiltonia oblonga, *Franchet, Pl. David.* p. 154.

CHIHLI : neighbourhood of Peking (*Bunge* ! *Williams* ! *Bushell* ! *Bretschneider* ! *Mœllendorff* ! *Tatarinow* !) ; KWANGTUNG : along the Lienchau river (*B. C. Henry*, hb. *Hance* !), without locality (*Ford* !). Mus. Brit. ; Herb. Kew.

The southern specimens may possibly represent a distinct species.

2. **Leptodermis vestita,** *Hemsl.*, n. sp.

*Frutex*, ut videtur, humilis, dense ramosus, ramulis foliisque dense furfuraceo-hirsutis. *Folia* breviter petiolata, crassiuscula, ovata, elliptica, vel interdum fere rotundata, usque ad 1¾ poll. longa, obtusa vel rotundata, venis primariis subtus prominentibus ; stipulæ inconspicuæ. *Flores* pauci ad apices ramulorum laxe aggregati ; involucrum pubescens, bilabiatum, calycem superans ; calycis lobi ampli, oblongo-rotundati, ciliolati ; corolla circiter semipollicaris, infundibularis, intus extusque puberula, lobis induplicato-valvatis obtusis ; antheræ subsessiles, supra medium tubi insertæ ; ovarium 5-loculare, loculis 1-ovulatis, stylo 5-fido ; ovula oblonga, erecta. *Fructus* deest.

KWANGTUNG: without locality (*Ford*, 267 !). Herb. Kew.

A very distinct species, differing markedly from all the others in its copious indumentum.

## 68. RUBIACEÆ: ANTHOSPERMEÆ.

1. **Serissa Democritea,** *Baill.* ex *Franchet, Pl. David.* p. 154.

Democritea serissoides, *DC. Prodr.* iv. p. 540.

KIANGSU: Kiangnan (*Staunton*!); CHEKIANG (*Staunton*!), Kouangfouchin (*Poli* ex *Franchet in litt.*); KIANGSI: Kiukiang (*David*, 805, ex *Franchet*); HUPEH: Ichang (*A. Henry*, 616!); KWANGTUNG: Lienchau (*Lamont*!). Mus. Brit.; Herb. Kew.

2. **Serissa fœtida,** *Comm. in Juss. Gen.* (1789) p. 209; *DC. Prodr.* iv. p. 575; *Hook. et Arn. Bot. Beech. Voy.* p. 194; *Hance in Journ. Bot.* 1880, p. 261; *Maxim. in Mél. Biol.* xi. p. 799.

Serissa japonica, *Thunb. Fl. Jap.* p. 93, t. 17.

Dysoda fasciculata, *Lour. Fl. Cochinch.* p. 146.

CHINA: without locality (*Millett*! *Beechey*!); KIANGSU: Shanghai (*Carles*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Amoy (*Hance*!); FORMOSA: Tamsui (*Oldham*, 226!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); KWANGTUNG: Swatow (*Perry*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan.

1. **Nertera sinensis,** *Hemsl.*, n. sp. (Plate X.)

*Herba* subaquatica, cæspitosa, pusilla, glabra, caulibus gracilibus 2–4 poll. longis radicantibus. *Folia* petiolata, crassiuscula, lanceolato-oblonga, cum petiolo 4–8 lineas longa, vix acuta, basi cuneata, subtus minutissime lepidota, venis immersis; stipulæ latæ, longiuscule acuminatæ. *Flores* hermaphroditi, minuti (1–1½ lineas diametro), terminales, sessiles, involucrati, involucro parvo cupuliformi bicuspidato; calycis limbus parvus, truncatus; corolla rotata, 4-fida, lobis obtusis; stamina exserta; stylus alte bifidus. *Bacca* carnosa, 4-pyrena; semina perfecta non visa.

SZECHUEN: Mount Omei, 2000 to 3000 feet, growing on stones in water (*Faber*!). Herb. Kew.

This is an interesting addition to the Chinese Flora, and an extension of the area of a genus of remarkable distribution. The present species differs from those previously described in having four pyrenes in the fruit, a condition not unknown in the neighbouring and very closely allied genus *Coprosma*.

## 68. RUBIACEÆ: Spermacoceæ.

1. **Spermacoce hispida**, *Linn. Mant.* p. 558; *DC. Prodr.* iv. p. 555; *Benth. Fl. Hongk.* p. 163; *Hook. f. Fl. Brit. Ind.* iii. p. 200; *Henriq. in Bol. Soc. Brot.* iii. p. 149.

Spermacoce articularis, *Linn. f. Suppl.* p. 119, excl. syn.

Spermacoce scabra, *Willd. Sp. Pl.* i. p. 572.

China: without locality (*Millett*!); Formosa (*Oldham*, 224!); Pescadores (*Swinhoe*!); Kwangtung: Pakhoi (*Playfair*! *Staunton*! *Nelson*!); Hongkong (*Wright*! *Champion*!). Mus. Brit.; Herb. Kew.

Widely spread in India and Malaya.

2. **Spermacoce philippensis**, *Willd.* ex *Spreng. Syst. Veg.* i. p. 401?; *Hance in Journ. Bot.* 1878, p. 107.

Hainan: on the northern coast (*Sampson*, hb. *Hance*, 13711!). Mus. Brit.; Herb. Kew.

Incomplete specimens of a doubtful species.

3. **Spermacoce semierecta**, *Roxb. Fl. Ind.* i. p. 371; *DC. Prodr.* iv. p. 556; *Benth. Fl. Hongk.* p. 163.

Borreria discolor, *Benth. in Hook. Kew Journ. Bot.* iv. p. 199.

Hongkong (*Champion*!). Herb. Kew.

4. **Spermacoce stricta**, *Linn. f. Suppl.* p. 120; *DC. Prodr.* iv. p. 554; *Benth. Fl. Hongk.* p. 162; *Hook. f. Fl. Brit. Ind.* iii. p. 200; *Henriq. in Bol. Soc. Brot.* iii. p. 149.

Spermacoce lasiocarpa, *R. Br. in Wall. Cat.* n. 832.

Bigelovia lasiocarpa, *Wight et Arn. Prodr. Fl. Penins. Ind. Or.* iv. p. 437.

China: without locality (*Millett*!); Hongkong (*Wright*!). Herb. Kew.

Tropical Asia and Africa.

5. **Spermacoce**, sp., caulibus teretibus, foliis linearibus, seminibus granulatis nec nitidis.

China: without locality (*Millett*!). Herb. Kew.

## 68. RUBIACEÆ: Galieæ.

1. **Rubia chinensis**, *Regel, Fl. Ussur.* n. 241, t. 8. ff. 1 et 2; *Maxim. in Mél. Biol.* ix. p. 266.

Rubia mitis, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 112.

CHIHLI: near Peking (*Tatarinow*, ex *Maximowicz*); SHINGKING: Black Bear Valley (*Ross*!). Herb. Kew.

Mandshuria and Japan.

2. **Rubia cordifolia**, *Linn. Mant.* p. 197; *DC. Prodr.* iv. p. 588; *Debeaux, Fl. Tients.* p. 23, et *Fl. Tchef.* p. 70; *Franchet, Pl. David.* p. 155, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 223; *Maxim. in Mél. Biol.* ix. p. 266; *Hook. f. Fl. Brit. Ind.* iii. p. 202 (varietates plures insignes).

NORTHERN and CENTRAL PROVINCES, common! Mus. Brit.; Herb. Kew.

Mountains of India southward to Ceylon and Malacca; Dahuria to Japan, and mountains of tropical Africa.

1. **Galium Aparine**, *Linn. Sp. Pl.* ed. 1, p. 108; *DC. Prodr.* iv. p. 608; *Benth. Fl. Hongk.* p. 164; *Maxim. in Mél. Biol.* ix. p. 259; *Hook. f. Fl. Brit. Ind.* iii. p. 205; *Debeaux, Fl. Tchef.* p. 71; *Franchet, Pl. David.* p. 156 et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 223.

Galium pauciflorum, *Bunge, Enum. Pl. Chin. Bor.* p. 35; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472 (*lapsu calami* parviflorum).

Galium sororium, *Hance in Walp. Ann.* ii. p. 734.

Galium Vaillantii, *DC. Prodr.* iv. p. 608.

CHINA: generally spread! Mus. Brit.; Herb. Kew.

Europe, North Africa, and temperate and subtropical Asia, and North America.

2. **Galium asprellum**, *Michx. Fl. Bor.-Am.* i. p. 78; *DC. Prodr.* iv. p. 598; *Maxim. Prim. Fl. Amur.* p. 140, et *in Mél. Biol.* ix. p. 262; *Franchet, Pl. David.* p. 156.

Galium davuricum, *Turcz. Fl. Baic.-Dahur.* i. p. 530.

CHIHLI: Jehol (*David*, 2212, ex *Franchet*).

Eastern Siberia, Mandshuria, Japan, and eastern North America.

3. **Galium boreale**, *Linn. Sp. Pl.* ed. 1, p. 108; *DC. Prodr.* iv. p. 600; *Franchet, Pl. David.* p. 155, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 223; *Maxim. in Mél. Biol.* ix. p. 264; *Hook. f. Fl. Brit. Ind.* iii. p. 205 (varietates plures).

CHIHLI: Jehol (*David*, 2024, ex *Franchet*); SHINGKING: hills

near Moukden (*James*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*). Herb. Kew.

Europe, temperate Asia, and North America.

Var. ? **molle**, *Hemsl.*; caulibus foliisque molliter pilosis.

HUPEH: Nanto and mountains to the northward (*A. Henry*, 2036!). Herb. Kew.

A very marked form, and possibly a distinct species, but Dr. Henry's specimens are in very young flower.

[*Galium chinense*, A. Spreng. (Tent. Suppl. ad Syst. Veg. Linn. p. 7), is insufficiently described for identification, but, from the characters given, it is most likely the same as *G. asprellum*, Michx.]

4. **Galium gracile**, *Bunge* (non *Wallr.*), *Enum. Pl. Chin. Bor.* p. 35; *Walp. Rep.* ii. p. 456; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472; *Mél. Biol.* ix. p. 261, et xi. p. 802.

Galium rotundum, *Thunb. Fl. Jap.* p. 59, ex *Franch. et Sav. Enum. Pl. Jap.* i. p. 241.

Galium Bungei, *Steud. Nomencl. Bot.*

Galium trachyspermum, *A. Gray in Perry's Exped.* ii. p. 313, et *Bot. Jap.* p. 393; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* i. p. 112.

Galium pogonanthum, *Franch. et Sav. Enum. Pl. Jap.* i. p. 213, et ii. p. 393.

Galium miltorrhizum, *Hance in Journ. Bot.* 1868, p. 114; *Debeaux, Fl. Shangh.* p. 34.

CHIHLI: near Peking (*Williams*, hb. *Hance*, 13833!); KIANGSU: Shanghai (*Faber*!); CHEKIANG: Ningpo (*Oldham*!); FOKIEN: Amoy (*Sampson*! *Wilford*!); HUPEH: Ichang and Patung district (*A. Henry*); SZECHUEN: Mount Omei (*Faber*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan.

5. **Galium linearifolium**, *Turcz. in Bull. Soc. Nat. Mosc.* 1837, vii. p. 152; *Walp. Rep.* ii. p. 458; *Franchet, Pl. David.* p. 156; *Maxim. in Mél. Biol.* ix. p. 265.

CHIHLI: near Peking (*Hancock*! *Tatarinow*; *David*, ex *Franchet*). Herb. Kew.

We have named Hancock's specimen from Turczaninow's description, having seen no authenticated specimen. It is, however, a very distinct species.

6. **Galium Mollugo,** *Linn. Sp. Pl.* ed. 1, p. 107; *DC. Prodr.* iv. p. 596; *Ledeb. Fl. Ross.* ii. p. 407; *Hook. f. Fl. Brit. Ind.* iii. p. 207.

SZECHUEN: Min river (*Faber*!). Herb. Kew.

Europe, N. Africa, eastward to the mountains of North India and Burma.

7. **Galium tricorne,** *Stokes in With. Nat. Arr. Brit. Pl.* ed. 2, p. 153; *DC. Prodr.* iv. p. 608; *Ledeb. Fl. Ross.* ii. p. 419; *Hook. f. Fl. Brit. Ind.* iii. p. 207.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*!). Herb. Kew.

Temperate Europe, North Africa, and eastward to North India.

[*Galium tuberosum*, Lour. (Fl. Cochinch. p. 79), is not a true *Galium*. The Chinese name given to it by Loureiro is applied, according to Bretschneider (Early Res. p. 156), to various species of *Polygonatum*.]

8. **Galium verum,** *Linn. Sp. Pl.* ed. 1, p. 107; *DC. Prodr.* iv. p. 602; *Franchet, Pl. David.* p. 156, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 223; *Debeaux, Fl. Tchef.* p. 71; *Maxim. in Mél. Biol.* ix. p. 265; *Hook. f. Fl. Brit. Ind.* iii. p. 208.

CHIHLI: near Peking (*Bretschneider*!); SHINGKING: Moukden (*Webster*! *James*!), Talienhwan (*Birnie*! *Swinhoe*!), south of Hingjing (*Ross*!); SHANTUNG: Chefoo (*Perry*!); COREA: Port Chusan (*Wilford*!). Herb. Kew.

Europe and North Africa, and Asia eastward to Japan.

1. **Asperula Platygalium,** *Maxim. in Mél. Biol.* ix. p. 267, var. *β*. pratensis.

**Rubia? gracilis,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 111.

COREAN ARCHIPELAGO: Long Reach (*Oldham*, 523!). Herb. Kew.

Mandshuria.

[Loureiro records *Crucianella stylosa*, Linn., as Chinese, on the faith of a drawing; and *Polyozus lanceolata* of the same author is an obscure plant of this Order.]

## 69. VALERIANACEÆ.

1. **Patrinia angustifolia,** *Hemsl.*, n. sp.

*Herba* perennis, robustiuscula, fere undique glabra, caulibus erectis, saltem 3 ped. altis, teretibus infra simplicibus. *Folia* (radicalia non visa) petiolata, crassiuscula, anguste lanceolata, usque ad 6 poll. longa, utrinque longe attenuata, acuta, inferiora, pauci-grosseserrata, superiora integerrima, venis primariis paucis crassiusculis. *Flores* lutei, mediocres, in cymas densas 2–3 poll. latas dispositi, cymis corymbosis, pedicellis brevibus minutissime puberulis; corolla ecalcarata, breviter tubulosa, lobis rotundatis; stamina 4. *Fructus* (maturus non visus) fere obsolete puberulus, bractea aucta oblonga nervosa subtendus, cellulis vacuis fertili fere dimidio brevioribus.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 1657!). Herb. Kew.

Characterized by long, narrow, glabrous, distantly toothed, or entire leaves. Judging from the young state, the mature bract subtending the fruit would be large and oblong in shape.

2. **Patrinia heterophylla,** *Bunge, Enum. Pl. Chin. Bor.* p. 35; *Walp. Rep.* ii. p. 526; *Hance in Journ. Bot.* 1874, p. 261; *Franchet, Pl. David.* p. 157.

Patrinia graveolens, *Hance, in Ann. Sc. Nat.* 4me série, xv. p. 224?

CHIHLI: near Peking (*Kirilow*! *Mœllendorff*! *Bretschneider*! *Williams*! *Bushell*!), Jehol (*David*, 1993!); CHEKIANG: mountains south of Ningpo at 4000 feet (*Hancock*!); FOKIEN: near the western boundary (*de Grijs*, hb. *Hance*, 6694!); KIANGSI: Kiukiang (*Shearer*!). Mus. Brit.; Herb. Kew.

Mongolia.

There is a little uncertainty about the limits of this and some other species of the genus, which we cannot remove in the absence of authenticated specimens of some of the forms described as species. Hance himself (Journ. Bot. 1883, p. 322) reduces his *P. graveolens* to *P. ovata*, which is here treated as a form of *P. villosa*.

[*Patrinia intermedia*, Roem. et Schult., is recorded as Chinese by De Candolle (Prodr. iv. p. 624), but, it would seem, erroneously.]

3. **Patrinia rupestris,** *Juss. in Ann. Mus. Par.* x. p. 311;

*DC. Prodr.* iv. p. 624; *Ledeb. Fl. Ross.* ii. p. 427; *Maxim. Prim. Fl. Amur.* p. 141.

SHINGKING: without locality (*Ross*!); KIANGSU (*Poli* ex *Franchet in litt.*). Herb. Kew.

Altai to Mandshuria and Eastern Siberia.

4. **Patrinia saniculæfolia**, *Hemsl.*, n. sp.

*Herba* perennis, fere undique glabra, erecta, vix pedalis, caulibus teretibus simplicibus sæpissime (an semper?) bifoliatis obscure bilineatim puberulis. *Folia* radicalia graciliter petiolata, subcoriacea, rotundata, circiter 1½ poll. diametro, 5–7-lobata, lobis obtusiuscule paucidentata, venis immersis, petiolis 1½–2 poll. longis; folia 2 caulina ampliora, breviter petiolata, alte palmatifida vel subpinnatifida. *Flores* lutei, mediocres, in cymas parvas densas terminales dispositi, cymis bracteis foliaceis subtendis; corolla subobsolete calcarata, brevissime tubulosa, intus pilosa, lobis oblongis obtusissimis; stamina 4. *Fructus* deest.

COREA: Soul mountains (*Carles*!). Herb. Kew.

In foliage this approaches the Japanese *P. palmata*, Maxim., which differs materially in its very distinctly spurred corolla.

5. **Patrinia scabiosæfolia**, *Fisch.* ex *Link, Hort. Berol.* i. p. 131; *DC. Prodr.* iv. p. 624; *Ledeb. Fl. Ross.* ii. p. 427; *Hance in Journ. Bot.* 1870, p. 225, et 1883, p. 322; *Franch. et Sav. Enum. Pl. Jap.* i. p. 216; *Franchet, Pl. David.* p. 158, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 223; *Debeaux, Fl. Tchef.* p. 72; *Sweet, Brit. Fl. Gard.* t. 154.

Patrinia hispida, *Bunge, Pl. Mongh.-Chin.* Dec. i. p. 25, t. 3.

Patrinia parviflora, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* n. 678; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 115.

Patrinia serratulæfolia, *Fisch.* ex *DC. Prodr.* iv. p. 624, *et spec. cult. in herb. Kew.*

CHIHLI: Jehol (*David*, 1934!); SHINGKING: without locality (*Ross*!), Moukden to Yaloo river (*Webster*!); SHANTUNG (*Maingay*!); KIANGSU: Shanghai (*Carles*!); CHEKIANG: Ningpo (*Faber*!); FOKIEN: Amoy (*Fortune*, 43! *Hance*, 1437!); HUPEH: Ichang and Patung (*A. Henry*!); KWANGTUNG: district of Yingtak (*Sampson*, hb. *Hance*, 1437!), without locality (*Ford*!); COREA: Chemulpo (*Carles*!), eastern side (*Perry*!) Mus. Brit.; Herb. Kew.

Dahuria eastward to Japan.

6. **Patrinia scabra**, *Bunge, Pl. Mongh.-Chin.* Dec. i. p. 20, t. 1; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472; *Franchet, Pl. David.* p. 157; *Kanitz in Math. und Naturw. Ber. Ungarn*, iii.

CHIHLI: neighbourhood of Peking (*Williams! Bushell! Kirilow! Bretschneider!*); KANSUH (*Szechenyi* ex *Kanitz*). Mus. Brit.; Herb. Kew.

7. **Patrinia villosa**, *Juss. in Ann. Mus. Par.* x. p. 311; *DC. Prodr.* iv. p. 624; *Franch. et Sav. Enum. Pl. Jap.* i. p. 216.

Patrinia ovata, *Bunge, Pl. Mongh.-Chin.* Dec. i. p. 23, t. 2; *Franchet, Pl. David.* p. 157.

Valeriana villosa, *Thunb. Fl. Jap.* p. 32, t. 6.

CHINA: without locality (*Fortune*, 107!); KIANGSU: Shanghai (*Tonnere! Carles!*); CHEKIANG: Ningpo mountains (*Faber!*); KIANGSI: Kiukiang (*Shearer!*); FOKIEN: Amoy interior (*Swinhoe!*); HUPEH: Ichang, Patung and neighbourhood (*A. Henry*, 117, 149, 535, 986, 928, 2426, 2557, 3258!); KWANGTUNG: Lofaushan (*Ford!*); COREA: Chemulpo (*Carles!*). Mus. Brit.; Herb. Kew.

Japan.

A very variable species in the foliage. It is employed as a drug in Central China, according to Dr. Henry.

1. **Nardostachys Jatamansi**, *DC. Mém. Valer.* p. 7, t. 1, et *Prodr.* iv. p. 624; *Franchet in Bull. Soc. Bot. Fr.* xxxii. p. 8; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 211.

YUNNAN: Maokoutchong above Tapintzu near Tali (*Delavay* ex *Franchet*).

The Himalayas, from Kumaon to Sikkim.

1. **Valeriana officinalis**, *Linn. Sp. Pl.* ed. 1, p. 31; *DC. Prodr.* iv. p. 641; *Baker & Moore in Journ. Linn. Soc.* xvii. p. 383; *Franchet, Pl. David.* p. 158; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 211.

Valeriana dubia, *Bunge, in Ledeb. Alt.* i. p. 52, et *Ic. Fl. Ross.* t. 350; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472.

CHIHLI: hills west of Peking (*David*, 2287!); SHINGKING: Jaoling (*Ross!*), Moukden to Yaloo river (*Webster! James!*); HUPEH: Patung district (*A. Henry!*); COREA: west coast

(*Perry* !); COREAN ARCHIPELAGO: Herschel Island (*Oldham*, 526 !). Mus. Brit.; Herb. Kew.

Europe to Japan.

2. **Valeriana Wallichii,** *DC. Mém. Valer.* p. 15, t. 4; *DC. Prodr.* iv. p. 640; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 213.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 1139 !). Herb. Kew.

Afghanistan to the Khasia mountains in Eastern India.

3. **Valeriana,** sp. aff. *V. Hardwickii*, Wall., sed fructu glabro.

SZECHUEN: Mount Omei, 4000 to 9000 feet (*Faber* !) Herb. Kew.

There is hardly sufficient material to determine whether this is undescribed. A second species from Omei bears only unexpanded flowers.

[*Valerianella Olitoria*, Mœnch, was collected by Faber at Shanghai, where it is doubtless a colonist.]

## 70. DIPSACEÆ.

1. **Triplostegia glandulifera,** *Wall. Cat.* 436; *DC. Prodr.* iv. p. 6; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 215.

Triplostegia glandulosa, *DC. Mém. Valer.* p. 20, t. 5.

HUPEH: Patung district (*A. Henry*, 2425 !); SZECHUEN: Mount Omei, at 4000 feet (*Faber* !). Herb. Kew.

North India, from Gurwhal to Bhotan.

1. **Morina betonicoides,** *Benth. in Hook. Ic. Pl.* t. 1171; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 217; *Franchet in Bull. Soc. Bot. France*, xxxii. p. 8.

YUNNAN: above Tali (*Delavay* ex *Franchet*).

Sikkim Himalaya.

2. **Morina Delavayi,** *Franchet in Bull. Soc. Bot. France*, xxxii. p. 8.

YUNNAN: Heechanmen mountains near Lankong (*Delavay* ex *Franchet*).

1. **Dipsacus asper,** *Wall. Cat.* 428; *DC. Prodr.* iv. p. 646; *Clarke in Hook. f. Fl. Brit. Ind.* iii. p. 218.

HUPEH: Ichang (*A. Henry*!). Herb. Kew.
Khasia hills, Eastern India.

2. **Dipsacus japonicus,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 114; *Franchet, Pl. David.* p. 159; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 26.

Dipsacus Gmelini, *Maxim. Fl. Pek. in Prim. Fl. Amur.* p. 472, non *Bieb.*

CHIHLI: Jehol (*Tatarinow* ex *Maximowicz*; *David* ex *Franchet*).

Japan.

1. **Scabiosa Fischeri,** *DC. Prodr.* iv. p. 658; *Ledeb. Fl Ross.* ii. p. 456; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 472; *Debeaux, Fl. Tients.* p. 23; *Franchet, Pl. David.* p. 159.

CHIHLI: Peking (*Kirilow*! *Bretschneider*! *Bushell*! *Mœllendorff*! *Carles*!); SHINGKING: Peiling, between Moukden and the Yaloo river (*Webster*!). Mus. Brit.; Herb. Kew.

Altai and Dahuria eastward to Mandshuria.

[*Scabiosa cochinchinensis,* Lour. (Fl. Cochinch. p. 68), is an obscure plant, the Chinese name of which, according to Bretschneider (Early Res. p. 156), is applied in Canton to *Elephantopus scaber*, Linn.]

## 71. COMPOSITÆ: VERNONIACEÆ.

1. **Vernonia Andersoni,** *Clarke, Comp. Ind.* p. 26; *Hook. f. Fl. Brit. Ind.* iii. p. 241.

Vernonia Cumingiana, *Benth. in Hook. Kew Journ. Bot.* iv. p. 232, et *Fl. Hongk.* p. 170, pro parte.

FOKIEN: Foochow (*Carles*!); FORMOSA (*Oldham*, 232 !); HONGKONG (*Champion*! *Wilford*! *Wright*!). Mus. Brit.; Herb. Kew.

Assam, Birma, and Tenasserim.

Cuming's Philippine plant, associated with this by Bentham, is a distinct species; therefore, in order to avoid further confusion, we adopt Clarke's later name.

2. **Vernonia bracteata,** *Wall. Cat.* n. 2921; *Clarke, Comp. Ind.* p. 17, excl. syn.; *Wight*, ex *Hook. f. Fl. Brit. Ind.* iii. p. 232.

HUPEH: Ichang, Patung, and Nanto (*A. Henry*, 29, 296, 521, 958, 2176, 2306!); SZECHUEN: Wuchu gorge (*Faber*!). Herb. Kew.

Eastern India and Birma.

3. **Vernonia chinensis,** *Less. in Linnæa,* vi. pp. 105 et 674; *Benth. Fl. Hongk.* p. 169; *Henriq. in Bol. Soc. Brot.* iii. p. 147 *Hook. f. Fl. Brit. Ind.* iii. p. 235.

Conyza chinensis, *Lam. Encycl.* ii. p. 83, non *Linn.*

Centratherum chinense, *Less. in Linnæa,* iv. p. 320.

Cyanopis pubescens, *DC. Prodr.* v. p. 69; *Benth. in Hook. Kew Journ. Bot.* iv. p. 232.

Cyanopis villosa, *DC. Prodr.* v. p. 69.

Cyanthillium pubescens, *Blume, Bijdr.* p. 890.

Cyanthillium villosum, *Blume, Bijdr.* p. 889.

Conyza patula, *Ait. Hort. Kew.* ed. 1, iii. p. 184; *Willd. Sp. Pl.* iii. p. 1919; *Mill. Fig. Pl.* ii. p. 165, t. 247.

Isonema ovata, *Cass. in Dict. Sc. Nat.* xxiv. p. 25.

FORMOSA: Tamsui (*Oldham,* 235!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wright*!); HAINAN: Hoihow (*Hancock*!). Mus. Brit.; Herb. Kew.

Malay peninsula and archipelago to the Philippines.

4. **Vernonia cinerea,** *Less. in Linnæa,* iv. p. 291, et vi. p. 673; *DC. Prodr.* v. p. 24; *Benth. Fl. Hongk.* p. 169; *Hook. f. Fl. Brit. Ind.* iii. p. 233; *Henriq. in Bol. Soc. Brot.* iii. p. 147.

SOUTH and CENTRAL CHINA: apparently common (*Millett*! *Hinds*! *Gaudichaud*! *Seemann*! *Faber*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa and Australia.

5. **Vernonia Clivorum,** *Hance in Journ. Bot.* 1869, p. 164; *Hook. f. Fl. Brit. Ind.* iii. p. 232.

Vernonia Kingii, *Clarke, Comp. Ind.* p. 12.

KWANGTUNG: banks of the East river (*Sampson,* hb. *Hance,* 14734!). Mus. Brit.; Herb. Kew.

Pegu, Martaban, and Birma.

6. **Vernonia (§ Strobocalyx) esculenta,** *Hemsl.,* n. sp.

*Frutex*? ramulis ultimis floriferis teretibus puberulis. *Folia* (4 superiora tantum visa) petiolata, tenuiuscula, anguste lanceolata, 4–5 poll. longa, acuta, integra, supra scabriuscula, subtus pallidiora, præcipue in venis puberula, minute reticulata. *Capitula* 5–6-flora, breviter pedunculata, in corymbos terminales planos saltem 8 poll. latos disposita; involucri bracteæ 3–4-seriatæ, subrotundatæ, vel interiores oblongæ, obtusissimæ, furfurascentes; receptaculum glabrum. *Achænia* pallida, appresse hirsuta, bracteas

æquantes vel paullo superantes, compressa, subtrigona (faciebus interioribus planis, facie exteriore convexa); pappi paleæ albidæ, angustissimæ, vix scabridæ, persistentes, exteriores breves.

SOUTH-WEST CHINA: Weining (*Bourne*!). Herb. Kew.

Not closely allied to any species with which we have compared it. "Pith eaten by children," Bourne.

7. **Vernonia exilis,** *Miq. in Journ. de Bot. Néerl.* i. p. 98.

KWANGTUNG: common near Hoan (*Krone* ex *Miquel*).

8. **Vernonia Gomphrena,** *Walp. in Nov. Act. Nat. Cur.* xix. *Suppl.* i. p. 253, et *Rep. Bot.* vi. p. 90.

CHINA: without locality (*Meyen* ex *Walpers*).

9. **Vernonia gratiosa,** *Hance in Journ. Bot.* 1882, p. 290.

FORMOSA: in shady places near Tamsui (*Watters*, hb. *Hance*, 21947 !). Mus. Brit.

10. **Vernonia Kroneana,** *Miq. in Journ. de Bot. Néerl.* i. p. 98.

KWANGTUNG: near Suheang (*Krone* ex *Miquel*).

11. **Vernonia saligna,** *DC. Prodr.* v. p. 33; *Clarke, Comp. Ind.* p. 13; *Hook. f. Fl. Brit. Ind.* iii. p. 235.

KWANGTUNG: Lofaushan at 1000 feet (*Ford*!). Herb. Kew.

Eastern India and Birma.

The Chinese specimen is of more compact growth than the Indian, but exhibits no other obvious differences.

12. **Vernonia solanifolia,** *Benth. in Hook. Lond. Journ. Bot.* i. p. 486; *Kew Journ. Bot.* iv. p. 232, et *Fl. Hongk.* p. 169; *Hook. f. Fl. Brit. Ind.* iii. p. 240.

Vernonia Fortunei, *Schultz-Bip. in Flora,* 1852, p. 48 (nomen tantum).

CHINA: without locality (*Fortune*, 175 !); FOKIEN: Amoy interior (*Swinhoe*!); HONGKONG (*Champion*! *Seemann*! *Wilford*! &c., &c.); HAINAN (*B. C. Henry*!). Mus. Brit.; Herb. Kew.

Martaban and Pegu.

1. **Elephantophus scaber,** *Linn. Sp. Pl.* ed. 1, p. 814; *DC. Prodr.* v. p. 86; *Benth. Fl. Hongk.* p. 170; *Miq. in Journ. de Bot. Néerl.* i. p. 99; *Hook. f. Fl. Brit. Ind.* iii. p. 242; *Bretschn. Early Res.* p. 156; *Wight, Ic. Pl. Ind. Or.* t. 1086.

KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Wright*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, America, and Australia.

## 71. COMPOSITÆ: EUPATORIACEÆ.

1. **Adenostemma viscosum,** *Forst. Char. Gen. Pl.* p. 89, t. 45; *DC. Prodr.* v. p. 111; *Benth. Fl. Hongk.* p. 171; *Hook. f. Fl. Brit. Ind.* iii. p. 242; *Engl. Bot. Jahrb.* vi. p. 68; *Franchet, Pl. David.* p. 159; *Henriq. in Bol. Soc. Brot.* iii. p. 147; *Engler, Jahrb.* vi. p. 68.

Adenostemma tinctorium, *Cass. in Dict. Sc. Nat.* xxv. p. 364.

Spilanthes tinctorius, *Lour. Fl. Cochinch.* p. 484.

FOKIEN: Amoy (*Hance*, 1018!); HUPEH: Ichang (*A. Henry*!); KWANGTUNG: Canton (*Hance*!); HONGKONG (*Wilford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, America, and Australia.

1. **Ageratum conyzoides,** *Linn. Sp. Pl.* ed. 1, p. 839; *DC. Prodr.* v. p. 108; *Benth. Fl. Hongk.* p. 171; *Miq. in Journ. de Bot. Néerl.* i. p. 99; *Hook. f. Fl. Brit. Ind.* iii. p. 243.

KWANGTUNG: Fatshan (*Wenyon*!); HONGKONG (*Urquhart Kunze*!). Mus. Brit.; Herb. Kew.

Almost universally dispersed in warm countries, though often existing only as a colonist. Most likely of American origin.

[*Ageratum ciliare,* Lour. (Fl. Cochinch. p. 484), has not been identified; it is not probable, however, that the Chinese plant was the same as that figured by Plukenet and described by Linnæus.]

1. **Eupatorium japonicum,** *Thunb. Fl. Jap.* p. 308; *DC. Prodr.* v. p. 180; *Franch. et Sav. Enum. Pl. Jap.* i. p. 219; *Franchet, Pl. David.* p. 160; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 167.

Eupatorium Fortunei, *Turcz. in Bull. Soc. Nat. Mosc.* 1851, p. 170; *Walp. Ann.* v. p. 167.

Eupatorium Wallichii, *DC. Prodr.* v. p. 179; *Benth. Fl. Hongk.* p. 172; *Hance in Journ. Linn. Soc.* xiii. p. 106.

KIANGSU: Shanghai (*Maingay*!); CHEKIANG: Ningpo (*Carles*!); FOKIEN: Amoy (*Swinhoe*! *Fortune* 20 & 41!); FORMOSA (*Swinhoe*! *Wilford*, 559! *Oldham*, 238!); HUPEH: Ichang and Patung

districts (*A. Henry*, 40, 362, 1830, 2714 !); KWANGTUNG: North river (*Ford* !). Mus. Brit.; Herb. Kew.

Japan and Sachalin to the mountains of Northern India.

Sir Joseph Hooker (Fl. Brit. Ind. iii. p. 243) reduces *E. Wallichii* to *E. cannabinum*, Linn., and this may be the correct solution of a perplexing question; but in our case it would have involved the further association of the forms which we have referred to *E. Lindleyanum*. At the best the present can only be regarded as an approximate sorting. Possibly a more systematic examination of the numerous specimens in herbaria might result in the discovery of more tangible differential characters than we have found; but we are not alone in our bewilderment. Franchet distinguishes *E. japonicum* from *E. Lindleyanum* ("*chinense*") by the venation of the leaves, those of the latter being more or less distinctly triplinerved; and this is perhaps the most obvious difference between the two, though there are intermediate states.

Henriques (Bolet. Soc. Brot. iii. p. 147) records *Eupatorium punduanum*, Wall. (which is referred to *E. cannabinum* by Sir J. Hooker), from Kwangtung.

2. **Eupatorium Lindleyanum**, *DC. Prodr.* v. (1836) p. 180; *Benth. Fl. Hongk.* p. 172.

Eupatorium chinense, *auctorum plurimorum, an Linn.?*; *Bretschn. Early Res.* p. 101.

Eupatorium Kirilowii, *Turcz. in Bull. Soc. Nat. Mosc.* 1837, vii. p. 153; *Walp. Rep.* ii. p. 553; *Debeaux, Fl. Tchef.* p. 72; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 223.

Eupatorium subtetragonum, *Miq. in Journ. de Bot. Néerl.* i. p. 99?

CHINA: without locality (*Fortune*, 69 !); CHIHLI: near Peking (*Bushell* ! *Bretschneider* ! *Williams* !); SHINGKING: Moukden (*Webster* ! *James* !); SHANTUNG: Chefoo (*Forbes* !); KIANGSI: Kiukiang (*Shearer* !); FORMOSA: Kelung (*Ford* !); HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 141, 398, 518, 982, 3259 !); KWANGTUNG: Fatshan (*Wenyon* !); HONGKONG (*Champion* ! *Urquhart* !); LUCHU ARCHIPELAGO (*Wright* !). Mus. Brit.; Herb. Kew.

Mandshuria and Japan.

Linnæus's *E. chinense* was founded upon a specimen collected by Osbeck, which does not exist in the Linnean herbarium, and the description is very imperfect; therefore it is uncertain whether this be the same.

3. **Eupatorium melanadenium,** *Hance in Journ. Bot.* 1885, p. 325.

KWANGTUNG: Lofaushan (*Ford*!). Mus. Brit.; Herb. Kew.

Perhaps this should be regarded as a variety of *E. Lindleyanum.*

4. **Eupatorium Reevesii,** *Wall. Cat.* n. 3168; *DC. Prodr.* v. p. 179; *Hook. et Arn. Bot. Beech. Voy.* p. 267; *Benth. Fl. Hongk.* p. 172; *Hook. f. Fl. Brit. Ind.* iii. p. 243.

KIANGSI: Kiukiang (*Shearer*!); KWANGTUNG: Macao (*Hance*, 1047!); HONGKONG (*Champion*!); LUCHU ARCHIPELAGO (*Wright*! *Beechey*!). Mus. Brit.; Herb. Kew.

The Indian form referred to this species has a distinct appearance.

5. **Eupatorium stœchadosmum,** *Hance in Journ. Bot.* 1878, p. 228.

FORMOSA: Tamsui (*Hancock*?); HUPEH: Patung district (*A. Henry*, 2385?); KWANGTUNG: Whampoa (*Hance*, 9817!). Mus. Brit.; Herb. Kew.

This again is not a well-marked species. Hance states that it was cultivated on account of the fragrance of its flowers, which have almost exactly the odour of lavender.

6. **Eupatorium** sp., an var. *E. Lindleyani*? foliis omnibus tripartitis.

FORMOSA: Tamsui (*Oldham*, 239, 240!). Herb. Kew.

Possibly Miquel's *E. chinense*, var. *tripartitum*—Ann. Mus. Bot. Lugd.-Bat. ii. p. 167.

1. **Mikania scandens,** *Willd. Sp. Pl.* iii. p. 1743; *DC. Prodr.* v. p. 199; *Clarke, Comp. Ind.* p. 34; *Hook. f. Fl. Brit. Ind.* iii. p. 244.

Eupatorium scandens, *Linn. Sp. Pl.* ed. 1, p. 836; *Jacq. Ic. Pl. Rar.* t. 169.

Mikania volubilis, *Willd. Sp. Pl.* iii. p. 1743.

FORMOSA (*Maries*!). Mus. Brit.; Herb. Kew.

Very widely spread in Asia, Africa, and America. Out of sixty species of *Mikania* this is the only one inhabiting the Old World.

## 71. COMPOSITÆ: Asteroideæ.

1. **Solidago Virgaurea,** *Linn. Sp. Pl.* ed. 1, p. 880; *DC. Prodr.* v. p. 338; *Benth. Fl. Hongk.* p. 179; *Henriq. in Bol. Soc. Brot.* iii. p. 147; *Hook. f. Fl. Brit. Ind.* iii. p. 245; *Miq. in Journ. de Bot. Néerl.* i. p. 101 (var. leiocarpa); *Bretschn. Early Res.* p. 101.

Solidago cantoniensis et S. decurrens, *Lour. Fl. Cochinch.* p. 501; *DC. Prodr.* v. pp. 341–2.

Amphirhapis leiocarpa, *Benth. in Hook. Lond. Journ. Bot.* i. p. 488, et *in Hook. Kew Journ. Bot.* iv. p. 234; *Steetz in Seem. Bot. Voy. 'Herald,'* p. 386.

Amphirhapis chinensis, *Schultz-Bip. in Flora,* 1852, p. 48?

Corea to Formosa, Hongkong, and the extreme south of Kwangtung; also in the interior province of Hupeh, apparently very common, as it is in almost all collections. Mus. Brit.; Herb. Kew.

Europe and temperate Asia, eastward to Japan, and in North America.

All the Chinese specimens we have seen belong to the variety *leiocarpa.*

1. **Dichrocephala chrysanthemifolia,** *DC. in Wight Contrib. Ind. Bot.* p. 11, et *Prodr.* v. p. 372; *Hook. f. Fl. Brit. Ind.* iii. p. 245, var. glabrata.

Szechuen: above Chungching (*Faber*!). Herb. Kew.

Tropical and subtropical Asia and Africa.

2. **Dichrocephala latifolia,** *DC. Prodr.* v. p. 372; *Benth. Fl. Hongk.* p. 173; *Hook. f. Fl. Brit. Ind.* iii. p. 245; *Henriq. in Bol. Soc. Brot.* iii. p. 147; *Engler, Bot. Jahrb.* vi. p. 68; *Wight, Ic. Pl. Ind. Or.* t. 1096.

Formosa: Tamsui (*Oldham*, 255! *Swinhoe*!); Szechuen: near Fu city, and on the Min river (*Faber*!); Kwangtung (*Silva* ex *Henriques*); Hongkong (*Hance*, 454!). Mus. Brit.; Herb. Kew.

Tropical and subtropical Asia and Africa.

[*Pteronia tomentosa,* Lour. (Fl. Cochinch. p. 489), is quite unrecognizable from the description given, but it certainly does not belong to the African genus to which it is referred.]

1. **Cyathocline lyrata,** *Cass. in Ann. Sc. Nat.* 1829, p. 34; *DC. Prodr.* v. p. 373; *Hance in Journ. Bot.* 1878, p. 12; *Hook. f. Fl. Brit. Ind.* iii. p. 246.

SOUTH-WEST CHINA (*Bourne*!); KWANGTUNG (*Sampson*, hb. *Hance*!). Mus. Brit.; Herb. Kew.

Throughout India.

1. **Grangea maderaspatana,** *Poir. in Lam. Encycl. Suppl.* iii. p. 825; *DC. Prodr.* v. p. 373; *Benth. Fl. Hongk.* p. 185; *Hook. f. Fl. Brit. Ind.* iii. p. 247; *Wright, Ic. Pl. Ind. Or.* t. 1097.

KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Wilford*! *Champion*! *Wright*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Tropical Asia and Africa.

1. **Lagenophora Billardieri,** *Cass. in Dict. Sc. Nat.* xxv. p. 111; *DC. Prodr.* v. p. 307; *Benth. Fl. Hongk.* p. 173; *Hook. f. Fl. Brit. Ind.* iii. p. 248.

HONGKONG (*Champion*! *Wright*!). Mus. Brit.; Herb. Kew.

Khasia mountains in Eastern India, the Malay archipelago, and Australia.

1. **Callistephus hortensis,** *Cass. in Dict. Sc. Nat.* xxxvii. (1825) p. 491.

Callistemma hortense, *Cass. in Dict. Sc. Nat.* vi. *Suppl.* p. 45, et *Atl.* iii. t. 7.

Callistephus chinensis, *Nees, Gen. et Sp. Ast.* p. 222 (1832); *DC. Prodr.* v. p. 274; *Franch. et Sav. Enum. Pl. Jap.* i. p. 227; *Clarke, Comp. Ind.* p. 41; *Bretschn. Early Res.* p. 101.

Aster chinensis, *Linn. Sp. Pl.* ed. 1, p. 877; *Dill. Hort. Elth.* t. 34.

Diplopappus chinensis, *Less. Syn. Comp.* p. 165.

CHIHLI: top of Mount Conolly (*Bullock*!); SHINGKING (*Ross*!). Mus. Brit.; Herb. Kew.

Commonly cultivated in China and Japan and in India, westward to Afghanistan. Griffith collected it in gardens at Cabul in 1839–40. In Japan it is sometimes met with in waste places and on rubbish heaps near gardens.

1. **Aster (§ Euaster) alatipes,** *Hemsl.*, n. sp.

*Herba* perennis, 2–3-pedalis, hispidula (simul glutinosa?),

caulibus simplicibus teretibus. *Folia* radicalia non visa, caulina crassiuscula, sessilia vel petiolata (petiolo usque ad basin late alato), ovato-lanceolata, 1½–3 poll. longa, grosse calloso-crenata, acuminata, acuta, supra hispidula, subtus villosa, albida, venis primariis lateralibus utrinque sæpius 3–4 arcuatis. *Capitula* mediocria, radiata, pauca, confertiuscule corymbosa; involucri bracteæ circiter 4-seriatæ, herbaceo-scariosæ, virides, obovato-oblongæ vel spathulatæ, obtusissimæ vel rotundatæ, puberulæ, ciliolatæ; involucrum convexum, foveolatum. *Flores* radii circiter 15 (albi ?), uniseriati, feminei, corollæ limbus obovato-oblongus minute 3-dentatus. *Flores* disci hermaphroditi, purpurascentes; corolla infundibularis, glabra, lobis brevibus vix acutis. *Achænia* (matura non visa) oblonga, valde compressa, appresse hirsuta, albida; pappi setæ albidæ, scabridæ, corollas fere æquantes.

HUPEH: Nanto and mountains to the northward (*A. Henry*, 4496!). Herb. Kew.

A very distinct species, resembling *A. scaber* in foliage.

2. **Aster alpinus**, *Linn. Sp. Pl.* ed. 1, p. 872; *DC. Prodr.* v. p. 227; *Ledeb. Fl. Ross.* ii. p. 472; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 27; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 9.

CHIHLI: mountains of Siaowutaishan, near Peking, 8000 to 10,000 feet (*Hancock*! *Mœllendorff*!); KANSUH (ex *Kanitz*). Mus. Brit.; Herb. Kew.

Europe and Asia eastward to Mandshuria, but not known to occur in the Himalayas. It also inhabits Arctic America and the Rocky mountains.

3. **Aster altaicus**, *Willd. Enum. Pl. Hort. Berol.* p. 8[illegible]; *Ledeb. Fl. Alt.* iv. p. 99; *Franch. Pl. David.* p. 161, et *in M[illegible] Soc. Sc. Nat. Cherbourg*, xxiv. p. 224; *Hook. f. Fl. Brit. Ind.* [illegible] p. 251.

Calimeris altaica, *Nees, Gen. et Sp. Ast.* p. 228; *DC. Prodr.* v. p. 258; *Debeaux, Fl. Tients.* p. 24, et *Fl. Tchef.* p. 74 (varietates); *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 8.

Calimeris ciliosa, *Turcz. in Bull. Soc. Nat. Mosc.* 1851, xxiv. 2, p. 61 (*Fortune*, 30); *Walp. Ann.* v. p. 174.

Calimeris chinensis, *Schultz-Bip. in Flora*, 1852, p. 48, nomen tantum (*Fortune*, 30).

Calimeris coronata, *Schultz-Bip. in Flora*, 1852, p. 48 (*Fortune*, 97).
Calimeris ciliata, *A. Gray, Bot. Jap.* p. 394.
Aster striatus, *Franch. et Sav. Enum. Pl. Jap.* i. p. 222, non *Champ.*

CHINA: without locality (*Fortune*, 30, 97!); CHIHLI: near Peking (*Williams*! *Bushell*! *Bretschneider*! *Hancock*!); SHANTUNG: without locality (*Maingay*!), Chefoo (*Forbes*!); CHEKIANG: Ningpo (*Everard*!); FOKIEN: Amoy (*Hance*, 276!); KANSUH (ex *Kanitz*); HAINAN (*Swinhoe*!); COREA (*Perry*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Afghanistan and Altai mountains to Mandshuria and Japan.

Fortune's and Hance's numbered specimens were referred to this species by the late Mr. Bentham, but both Schultz and Turczaninow regarded them as specifically different. They are of dwarfer growth, with rather broader achenes and a rusty pappus. *Calimeris ciliata*, A. Gray, from Luchu is the same, and they are possibly different from true *A. altaicus*.

4. **Aster alyssoides**, *Turcz. Dec. Pl. Nov. Chin. Bor.* p. 19; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 9.

Calimeris alyssoides, *DC. Prodr.* v. p. 259.

KANSUH (ex *Kanitz*).

Mongolia.

5. **Aster baccharoides**, *Steetz in Seem. Bot. Voy. 'Herald,'* p. 385; *Henriq. in Bol. Soc. Brot.* iii. p. 147.

Diplopappus baccharoides, *Benth. in Hook. Kew Journ. Bot.* iv. p. 233; *Fl. Hongk.* p. 175; *Walp. Rep.* ii. p. 578.

SHANTUNG: Chefoo (*Forbes*!); CHEKIANG: Ningpo (*Everard*!); KIANGSU: hills near Shanghai (*Bullock*!); KIANGSI: Kiukiang (*Forbes*!); FOKIEN: Foochow (*Swinhoe*!); FORMOSA: Tamsui (*Oldham*, 245, 246!); KWANGTUNG (*Tate*!); HONGKONG (*Hinds*! *Wilford*! *Seemann*! *Champion*!). Mus. Brit.; Herb. Kew.

Some of the forms of this and of *A. trinervius* approach each other very closely.

6. **Aster brevipes**, *Benth. Fl. Hongk.* p. 175.

HONGKONG (*Wright*! *Champion*!). Herb. Kew.

This species was founded on two fragmentary specimens, and may prove, as Bentham suggests, a variety of *A. baccharoides*.

7. **Aster dimorphophyllus**, *Franch. et Sav. Enum. Pl. Jap.* ii. p. 395.

CHINA: without locality (*Fortune* ?). Herb. Kew.

A very imperfect specimen, different from anything else we have seen from China, and perhaps the same as the plant bearing the above name, which itself may be a form of *Boltonia japonica*, Miq. (*Aster japonicus*, Franch. et Sav.), with long pappus.

8. **Aster fastigiatus**, *Fisch. in Mém. Soc. Nat. Mosc.* iii. p. 74, non *Lehm.* nec *Ledeb.*, ex *Ledeb. Fl. Ross.* ii. p. 482; *Franch. et Sav. Enum. Pl. Jap.* i. p. 224; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 224.

Turczaninowia fastigiata, *DC. Prodr.* v. p. 258; *Ledeb. Fl. Ross.* ii. p. 482; *Debeaux, Fl. Tchef.* p. 74.

SHINGKING: Peiling, Tieling, &c. (*Webster*!), Kaichow to Kinchow (*Ross*!); SHANTUNG: Chefoo (*Forbes*!); KIANGSU: Shanghai (*Carles*!); CHEKIANG: Chusan (*Jacob*!); HUPEH: Ichang and Nanto (*A. Henry*!). Mus. Brit.; Herb. Kew.

Dahuria to Mandshuria and Japan.

9. **Aster (§ Euaster) Fordii**, *Hemsl.*, n. sp.

*Herba* perennis, pluripedalis ("*large plant*," A. Henry), undique rigide hirsuta vel fere scabrida, glutinosa ("sticky," A. Henry), caulibus teretibus striatis. *Folia* crassiuscula, radicalia (bene evoluta non visa) caulium lateralium novorum elongato-spathulata, 1½–2½ poll. longa, integra, appresse albo-pilosa; caulina scabrida, sessilia, semiamplexicaulia, ovato-oblonga, 1–3 poll. longa (internodiis brevioribus, sæpeque multo brevioribus), vix acuta, apiculata, integra, basi rotundato-auriculata, venis inconspicuis vel subobsoletis. *Capitula* radiata, pauca, pedunculata, laxe composito-corymbosa (corymbus maximus 8 poll. diametro), circiter 1 poll. diametro; involucri bracteæ 3–4-seriatæ, angustæ, acutæ, pubescentes, interdum rubescentes, margine scariosæ; receptaculum convexum, foveolatum simul muricatum. *Flores* radii rosei aut purpurei, uniseriati, feminei; corollæ limbus oblongus, 3-denticulatus, tubo parcissime pilosulo. *Flores* disci hermaphroditi; corolla infundibularis, extus medio puberula pappum vix superans, lobis recurvis. *Achænia* obovata, compressa, pallida, tota pubescentia; pappi setæ albidæ, subæquales, vix scabridæ, flores fere æquantes.

HUPEH: Ichang, Patung, and neighbourhood, on the high

mountains (*A. Henry*, 984, 2494, 2910, 3229 !); KWANGTUNG: Lofaushan, 800 feet (*Ford*, 88 !). Herb. Kew.

A distinct species characterized, among the Chinese species at least, by having ovate-oblong, entire, stem-clasping leaves.

10. **Aster Gerlachii**, *Hance in Journ. Bot.* 1880, p. 262.

KWANGTUNG: along the North river (*Gerlach*, hb. *Hance*, 20793 !). Herb. Kew.

11. **Aster Glehnii**, *F. Schmidt, Reise auf der Ins. Sachal.* p. 146; *Franch. et Sav. Enum. Pl. Jap.* i. p. 223; *S. Moore in Journ. Bot.* 1875, p. 231.

CHIHLI: near Peking (*Bushell* !); KIANGSI: Kiukiang (*Shearer* !); HUPEH: Ichang and Nanto, at 2000 to 3000 feet (*A. Henry*, 39, 386, 2656 !); SZECHUEN: summit of Omei (*Faber* !). Herb. Kew.

Sachalin and Japan.

The Chinese specimens referred here are hardly distinguishable from some of the forms of *A. trinervius*.

12. **Aster (§ Euaster) Henryi**, *Hemsl.*, n. sp.

*Herba* perennis, erecta, 6–12 poll. alta, undique glabra vel glabrescens, caulibus graciliusculis apice tantum ramosis, ramulis (pedunculis) floriferis sæpius elongatis corymbosis. *Folia* crassiuscula, lævia, angusta, remotissime dentata vel integra, radicalia petiolata, elongato-spathulata vel linearia, usque ad 5 poll. longa et 6 lin. lata, calloso-apiculata; folia caulina sessilia, linearia, ciliolata, uninervia. *Capitula* radiata, longe pedunculata, 6–9 laxe corymbosim disposita, $1\frac{1}{4}$–$1\frac{1}{2}$ poll. diametro; involucri bracteæ 4–5-seriatæ, angustæ, acutæ, interiores fere omnino scariosæ; receptaculum convexum. *Flores* radii albi (*Henry*); corollæ limbus angustus, integer, tubo parce puberulo. *Flores* disci lutei (*Henry*); corolla infundibularis, extus parce puberula, lobis recurvis. *Achænia* anguste oblongo-obovata, leviter compressa, pilis albidis sursum appressis vestita; pappi setæ æquales, scabridæ, albidæ, disci corollis paullo breviores.

HUPEH: Ichang and immediate neighbourhood (*A. Henry* 133, 3262 !). Herb. Kew.

13. **Aster hispidus**, *Thunb. Fl. Jap.* p. 315; *Franch. et Sav.*

*Enum. Pl. Jap.* i. p. 225, et ii. p. 396 (varietates α. isochæta, β. mesochæta, *et* γ. heterochæta); *Franchet, Pl. David.* p. 160.

Heteropappus hispidus, *Less. Syn. Comp.* p. 189; *DC. Prod.* v. p. 29; *Maxim. Prim. Fl. Amur.* pp. 146, 148.

Heteropappus incisus, H. rigens, *et* H. subserratus, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* n. 625, 626, et 627.

Calimeris hispida, *Nees, Gen. et Sp. Ast.* p. 227; *A. Gray, Bot. Jap.* p. 394.

Heteropappus decipiens, *Maxim. Prim. Fl. Amur.* p. 148.

Aster biennis, *Ledeb. in Ind. Sem. Hort. Dorpat. Suppl.* i. (1811), et *Fl. Alt.* iv. p. 97, in nota; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 224.

Callistephus biennis, *Lindl. in DC. Prodr.* v. p. 274.

Calimeris tatarica, *Lindl. in DC. Prodr.* v. p. 259.

Calimeris biennis, *Ledeb. Fl. Ross.* ii p. 483.

Galatella Meyendorfii, *Regel, Tent. Fl. Uss.* p. 81, t. 5. f. 2.

CHIHLI: Pohuashan (*Bullock*!), near Peking (*Mœllendorff*!); SHINGKING: Peiling and Moukden (*Ross*! *Webster*!); SHANTUNG: Chefoo (*Forbes*!); HUPEH: Ichang, Patung, and Nanto (*A. Henry,* 795, 937, 946, 977, 984, 1040, 3175, 3189, 3702!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford,* 663!). Mus. Brit.; Herb. Kew.

Altai to Japan.

14. **Aster holophyllus,** *Hemsl.*

Aster integrifolius, *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 224, et *Pl. David.* p. 160, non *Nutt.*

Calimeris integrifolia, *Turcz. in DC. Prodr.* v. p. 259; *Ledeb. Fl. Ross.* ii. p. 483; *Maxim. Prim. Fl. Amur.* p. 146.

Asteromæa pekinensis, *Hance in Ann. Sc. Nat.* 4me série, xv. p. 225.

Boltonia pekinensis, *Hance in Journ. Bot.* 1867, p. 370; *Debeaux, Fl. Tchef.* p. 76.

CHIHLI: near Peking (*Hance,* 6511! *Bushell*! *Bretschneider*!), Jehol (*David,* 2000!); SHINGKING: Kaichow to Kinchow (*Ross*!), Moukden to Yaloo river (*Webster*!); SHANTUNG (*Maingay*!), Chefoo (*Forbes*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

Dahuria to Mandshuria.

15. **Aster incisus,** *Fisch. in Mém. Soc Nat. Mosc.* iii. p. 76.

Calimeris incisa, *DC. Prodr.* v. p. 258; *Ledeb. Fl. Ross.* ii. p. 482; *Maxim. Prim. Fl. Amur.* p. 145, cum var. holophylla.

Boltonia incisa, *Benth. Fl. Hongk.* p. 173.

SHINGKING: Talienhwan (*Birnie*!); KIANGSI: Kiukiang (*Shearer*!); SHENSI or KANSUH: Tsunglin range (*Piasezki* ex *Maximowicz* in litt.). Herb. Kew.

Dahuria to Mandshuria.

16. **Aster indicus,** *Linn. Sp. Pl.* ed. 1, p. 876; *Franch. et Sav. Enum. Pl. Jap.* ii. p. 398; *Franchet, Pl. David.* p. 160, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 224.

Boltonia indica, *Benth. Fl. Hongk.* p. 174; *Henriq. in Bolet. Soc. Brot.* iii. p. 147; *Hook. f. Fl. Brit. Ind.* iii. p. 249; *Hance in Journ. Linn. Soc.* xiii. p. 107.

Asteromæa indica, *Blume, Bijdr.* p. 901; *DC. Prodr.* v. p. 303; *Hance in Ann. Sc. Nat.* 5me série, v. p. 219.

Hisutsua cantoniensis, *DC. Prodr.* vi. p. 44.

Matricaria cantoniensis, *Lour. Fl. Cochinch.* p. 498.

Hisutsua serrata, *Hook. et Arn. Bot. Beech. Voy.* p. 265.

CHINA: without locality (*Fortune*, 124!); SHINGKING (*Ross*!); SHANTUNG: Cheefo (*Forbes*!); KIANGSU: Shanghai (*Maingay*!); CHEKIANG: Chusan (*Cantor*!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 244!), Kelung (*Ford*!); HUPEH: Ichang and Patung (*A. Henry*, 70, 101, 1113, 1342, 1343, 2739!); SZECHUEN: Chungking (*Faber*!); KWANGTUNG: Macao (*Hance*, 5195! *Calléry*!), North river and Lofaushan (*Ford*!); LUCHU ARCHIPELAGO (*Beechey*! *Wright*!). Mus. Brit.; Herb. Kew.

Birma and Malay archipelago, and Japan.

17. **Aster Lautureanus,** *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 224.

Boltonia Lautureana, *Debeaux, Fl. Tchef.* p. 76.

SHANTUNG: Yentai and Fouchanyen (ex *Franchet* et *Debeaux*).

18. **Aster (§ Euaster) limosus,** *Hemsl.*, n. sp.

*Herba* perennis, erecta, 1–3 ped. alta, caulibus striatis primum furfuraceo-strigillosis. *Folia* crassiuscula, hispida, petiolata vel suprema gradatim minora, subsessilia, grosse crenata simul calloso-dentata, radicalia cordata, cordato-rotundata vel reniformia, absque petiolo $\frac{3}{4}$–2 poll. longa; petiolus graciliusculus, pilosus, 1–2$\frac{1}{2}$ poll. longus; folia caulina cordata vel ovata, obtusa vel calloso-apiculata. *Capitula* radiata, pedunculata, pauca (4–8) ad apices ramulorum corymbosa, circiter 1 poll. diametro; involucri

bracteæ coriaceæ, glabrescentes, circiter 5-seriatæ, angustæ, obtusæ, apice coloratæ; receptaculum subplanum, foveolatum. *Flores* radii purpurei, uniseriati; corollæ glabri limbus latus. *Flores* disci purpurascentes; corolla infundibularis, pappum vix superans, lobis recurvis. *Achænia* oblonga vel obovato-oblonga, compressa, tota pubescentia; pappi setæ rufescentes, æquales, vix scabridæ, flores fere æquantes.

HUPEH: Ichang, growing in dirty-water fields (*A. Henry*, 102!). Herb. Kew.

19. **Aster mongolicus**, *Franchet*, *Pl. David.* p. 61, cum tab.; *Nouv. Arch. du Mus.* 2me série, vi. t. 13.

CHIHLI: Jehol (*David*, 1995, 2189 ex *Franchet*).

20. **Aster (§ Heteropappus) Oldhami**, *Hemsl.*, n. sp.

*Herba* perennis? robustiuscula, puberula, caulibus striatis ramosis, ramulis rigidis rectis dense foliatis. *Folia* (caulina tantum visa) crassa, sessilia, obovato-oblonga, vel interdum fere elliptica, maxima 1½ poll. longa, sursum gradatim minora, suprema minuta, squamiformia, omnia rotundata vel obtusissima, basi lata, integra, duplicato-ciliata, utrinque parcissime hispidula, demum glabrescentia, venis immersis obsoletis. *Capitula* radiata, longe pedunculata, vix 1 poll. diametro, pedunculis crassis rigidis foliis squamiformibus vel bracteiformibus instructis sub capitulo incrassatis; involucri bracteæ circiter 4-seriatæ, breves, latæ, patentes, demum reflexæ, crassæ, obtusæ vel vix acutæ, ciliatæ, foliis supremis similes; receptaculum leviter convexum, foveolatum. *Flores* radii pauci, uniseriati; corollæ limbus latus, medio latior, tubo brevissimo vel subnullo. *Flores* disci brevissimi; corolla subcylindrica, puberula, lobis latis brevibus suberectis extus apicem versus barbatis. *Achænia* pallida, late obovata, valde compressa, appresse hirsuta; pappus radii e squamis paucis albidis brevibus fimbriatis, disci e setis ferrugineis subinæqualibus scabridis corolla fere dimidio brevioribus.

FORMOSA (*Oldham*, 285!). Herb. Kew.

Easily recognized by its robust rigid habit and thick branches, clothed throughout with somewhat fleshy obovate ciliate leaves, similar to those of *A. ciliatus*, A. Gray, here reduced to *A. altaicus*.

21. **Aster panduratus**, *Nees ex Walp. in Nov. Act. Nat. Cur.* xix., *Suppl.* i. p. 258, et *Rep.* vi. p. 119.

KWANGTUNG: Lintin (*Meyen* ex *Walpers*),

22. **Aster (§ Boltonia) procerus**, *Hemsl.*, n. sp.

*Herba* perennis? robusta, pluripedalis, scabra, nec vere hirsuta, caulibus crassis striatis vel subangulatis sursum ramosis, ramulis patentissimis. *Folia* (caulina tantum visa) petiolata, tenuia, ovato-lanceolata, usque ad 6 poll. longa, grosse serrata, acuminata, acuta, basi cuneata, utrinque scabra, venis primariis lateralibus utrinque sæpius 3–4 longe intra marginem anastomosantibus. *Capitula* radiata, majuscula, longe graciliterque pedunculata, laxissime corymbosa; involucri bracteæ pluriseriatæ, herbaceæ, angustissimæ, acutissimæ, scabridæ, flores disci subæquantes; receptaculum conicum, foveolatum. *Flores* radii albi, circiter 20, uniseriati; corollæ tubus brevissimus, puberulus, limbo oblongo subintegro. *Flores* disci lutei; corolla late infundibularis, lobis longiusculis recurvatis vix acutis. *Achænia* (matura non visa) obovoidea, leviter compressa, appresse hirsuta; pappi setæ breves, inæquales, subpaleaceæ.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 4278!). Herb. Kew.

A coarse herb most nearly resembling *Aster tataricus* in habit and general appearance.

23. **Aster Sampsoni**, *Hemsl.*

Heteropappus Sampsoni, *Hance in Journ. Bot.* 1867, p. 370, et *in Journ. Linn. Soc.* xiii. p. 107.

KWANGTUNG: top of the White Cloud mountains (*Sampson*, 1020!), Pakwan mountains and in grassy places along the West river (*Sampson*, hb. *Hance*, 13776!). Mus. Brit.; Herb. Kew.

24. **Aster scaber**, *Thunb. Fl. Jap.* p. 316; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 224.

Biotia discolor, *Maxim. in Prim. Fl. Amur.* p. 146.

Doellingeria scabra, *Nees, Gen. et Sp. Ast.* p. 183; *DC. Prodr.* v. p. 263; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 169.

CHIHLI: near Peking (*Bretschneider*! *Bushell*!); SHINGKING: Moukden to Yaloo river (*Webster*!), without locality (*Ross*!); HUPEH: Patung district (*A. Henry*!); KWANGTUNG: Lofaushan,

1000 feet (*Ford*!); COREA: Chemulpo (*Carles*!), east (*Perry*!). Mus. Brit.; Herb. Kew.

Mandshuria and Japan.

25. **Aster scaberulus**, *Miq. in Journ. de Bot. Néerl.* i. p. 100.

KWANGTUNG (*Krone* ex *Miquel*).

We probably have this plant under some other species.

26. **Aster striatus**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 233; *Walp. Ann.* v. p. 173; *Benth. Fl. Hongk.* p. 174.

Doellingeria trichocarpa, *DC. Prodr.* v. p. 263.

HONGKONG (*Champion*! *Wright*!). Mus. Brit.; Herb. Kew.

The Japanese plant, collected by Oldham and referred to this species by Franchet and Savatier (Enum. Pl. Jap. i. p. 222), is certainly different, though correctly identified with *Calimeris ciliata*, A. Gray, which is the same as *C. ciliosa*, Turcz. We have followed Bentham in reducing this to *Aster altaicus*, but we are not quite satisfied that it is that species.

27. **Aster tataricus**, *Linn. f. Suppl.* p. 373; *DC. Prodr.* v. p. 230; *Ledeb. Fl. Ross.* ii. p. 475; *Franch. et Sav. Enum. Pl. Jap.* i. p. 222; *Franchet, Pl. David.* p. 162.

CHIHLI: near Peking (*Bretschneider*! *Hancock*!), Pohuashan (*Bullock*!), Jehol (*David* ex *Franchet*). Mus. Brit.; Herb. Kew.

Western Siberia to Kamtschatka and Japan.

28. **Aster trinervius**, *Roxb. Fl. Ind.* iii. p. 433; *Benth. Fl. Hongk.* p. 174; *Hook. f. Fl. Brit. Ind.* iii. p. 252; *Franchet, Pl. David.* p. 161; *Franch. et Sav. Enum. Pl. Jap.* i. p. 222 (varietates plures); *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 224.

Aster Benthami, *Steetz in Seem. Bot. Voy. 'Herald,'* p. 385.

Diplopappus asperrimus, *DC. Prod.* v. p. 277.

Diplopappus laxus, *Benth. in Hook. Lond. Journ. Bot.* i. p. 487, et *in Hook. Kew Journ. Bot.* iv. p. 233.

Aster ageratoides, *Turcz. in Bull. Soc. Nat. Mosc.* 1837, vii. p. 154; *Walp. Rep.* ii. p. 574; *Maxim. Ind. Fl. Pek. in Prim. Pl. Amur.* p. 472 (var. heterophylla); *Debeaux, Fl. Tchef.* p. 73.

CHINA: without locality (*Fortune*, 110!); CHIHLI: near Peking (*Bretschneider*!); SHINGKING (*Ross*!); SHANTUNG: without locality (*Maingay*!); Chefoo (*Forbes*!); FORMOSA (*Swinhoe*!); HUPEH: district of Ichang, Patung, and Nanto

(*A. Henry*, 114, 942, 987, 2172, 2446, 2657, 2789, 2790, 2942, 3055, 3164!); HONGKONG (*Champion*! *Wilford*! *Hinds*! *Hance*, 461!). Mus. Brit.; Herb. Kew.

Mandshuria and Japan and the mountains of Northern and Eastern India.

Very common and variable in Central China (as in India) if we have correctly referred to this species all Dr. Henry's numbers cited above.

29. **Aster Tripolium**, *Linn. Sp. Pl.* ed. 1, p. 872; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 224.

Tripolium vulgare, *Nees, Gen. et Sp. Ast.* p. 153; *DC. Prodr.* v. p. 253; *Maxim. Prim. Fl. Amur.* p. 145, et *Ind. Fl. Pek. op. cit.* p. 472; *Debeaux, Fl. Tients.* p. 25, et *Fl. Tchef.* p. 73.

CHINA: without locality (*Fortune*, 112!); CHIHLI: Peking (ex *Maximowicz*), Tientsin (ex *Debeaux*); SHANTUNG (ex *Franchet*); KIANGSU: Shanghai (*Faber*!). Mus. Brit.; Herb. Kew.

Western Europe to Japan, though not recorded from North India.

30. **Aster turbinatus**, *S. Moore in Journ. Bot.* 1878, p. 132.

China: without locality (*Fortune*, 104, 19!); CHEKIANG: Ningpo (*Everard*!). Mus. Brit.; Herb. Kew.

31. **Aster Walpersianus**, *Nees* ex *Walp. in Nov. Act. Nat. Cur.* xix. Suppl. 1, p. 259, et *in Rep.* vi. p. 119.

KWANGTUNG: Lintin (*Meyen* ex *Walpers*).

1. **Brachyactis ciliata**, *Ledeb. Fl. Ross.* ii. p. 495; *Franchet, Pl. David.* p. 162.

Erigeron ciliatum, *Ledeb. Fl. Alt.* iv. p. 92; *Boiss. Fl. Or.* iii. p. 169.

Conyza altaica, *DC. Prodr.* v. p. 380.

Erigeron (Trimorphæa) latisquamatus, *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473, in adnot. ex *Maxim. in litt.*

CHIHLI: Peking (ex *Maximowicz*), Jehol (*David*, 2206 ex *Franchet*).

Altai, Turkestan, Mongolia, and Mandshuria.

1. **Erigeron acris**, *Linn. Sp. Pl.* ed. 2, p. 1211; *DC. Prodr.* v.

p. 290; *Boiss. Fl. Or.* iii. p. 166; *Franch. et Sav. Enum. Pl. Jap.* ii. p. 400.

Erigeron kamtschaticus, *DC. Prodr.* v. p. 290; *Ledeb. Fl. Ross.* ii. p. 488; *Franch. et Sav. Enum. Pl. Jap.* i. p. 227.

HUPEH: Patung district (*A. Henry*, 281, 1755, 1810, 1859!). Herb. Kew.

Western Europe to Japan, and in North America.

2. **Erigeron alpinus**, *Linn. Sp. Pl.* ed. 1, p. 864; *DC. Prodr.* v. p. 291; *Ledeb. Fl. Ross.* ii. p. 490.

COREA: Changpeishan, 1000 to 7500 feet (*James*!). Herb. Kew.

Western Europe to Kamtschatka and in North America.

[*Erigeron annuus*, Pers. (Syn. Pl. ii. p. 431), syn. *Stenactis annua*, Less. (Gen. et Sp. Ast. p. 273), is a North-American plant, naturalized in Europe and Japan; and Faber sends it labelled "Shanghai mountains, rare."]

3. **Erigeron canadensis**, *Linn. Sp. Pl.* ed. 1, p. 863; *DC. Prodr.* v. p. 289; *Hook. f. Fl. Brit. Ind.* iii. p. 254; *Franchet, Pl. David.* p. 162, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 225.

SHANTUNG: Chefoo (ex *Franchet*); CHEKIANG: Ningpo mountains (*Faber*!); KIANGSI: Kiukiang (hb. *Forbes*!); HUPEH: Ichang and neighbourhood (*A. Henry*!); SZECHUEN: Nankee (*Faber*!). Mus. Brit.; Herb. Kew.

Now very widely spread, but supposed to be indigenous in America, and a colonist in the Old World.

4. **Erigeron chinense**, *Jacq. Hort. Schœnb.* iii. p. 30, t. 303; *DC. Prodr.* v. p. 290.

China.

[*Erigeron hirsutus*, Lour. (Fl. Cochinch. p. 500; DC. Prodr. v. p. 294), is an obscure species described as having a subsquarrose involucre and a blue ray of numerous narrow flowers.]

5. **Erigeron linifolius**, *Willd. Sp. Pl.* iii. p. 1955; *Benth. Fl. Hongk.* p. 176; *Debeaux, Fl. Shangh.* p. 35; *Henriques in Bolet. Soc. Brot.* iii. p. 147.

Conyza ambigua, *DC. Fl. Franç. Suppl.* p. 468, et *Prodr.* v. p. 381.

Erigeron ambiguus, *Schultz-Bip. in Phyt. Canar.* ii. p. 208.

KIANGSU: Shanghai (*Maingay*! *Bullock*!); SZECHUEN: Chung-

king (*Faber*!); KWANGTUNG: Lofaushan (*Ford*!); HONGKONG (*Wilford*! *Wright*!). Mus. Brit.; Herb. Kew.

A native of the Mediterranean region, now widely colonized.

1. **Microglossa albescens,** *Clarke, Comp. Ind.* p. 59; *Hook. f. Fl. Brit. Ind.* iii. p. 257; *Bot. Mag.* t. 6672.

Amphirhapis albescens, *DC. Prodr.* v. p. 343.

SZECHUEN: Mount Omei at 5000 feet (*Faber*!). Herb. Kew.

Mountains of North India from Kishtwar to Sikkim and Bhotan.

2. **Microglossa volubilis,** *DC. Prodr.* v. p. 320; *Clarke, Comp. Ind.* p. 57; *Hook. f. Fl. Brit. Ind.* iii. p. 257.

Erigeron pyrifolius, *Benth. Fl. Hongk.* p. 176.

Conyza pyrifolia, *Lam. Encycl.* ii. p. 89.

CHINA: without locality (*Millett*!); KWANGTUNG: without locality (*Tate*!), Macao (*Calléry*!); HONGKONG (*Wilford*!). Mus. Brit.; Herb. Kew.

Eastern India and Malaya, tropical Africa and Madagascar.

1. **Conyza ægyptiaca,** *Ait. Hort. Kew.* iii. p. 183; *DC. Prodr.* v. p. 382; *Hance in Journ. Bot.* 1878, p. 108; *Hook. f. Fl. Brit. Ind.* iii. p. 258.

FOKIEN: various localities near Amoy (*Sampson & Hance*, 1448, 7935!); FORMOSA: Tamsui (*Oldham*, 247!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and Australia, and extending to Japan.

2. **Conyza japonica,** *Less. Syn. Comp.* p. 204; *DC. Prodr.* v. p. 383; *Hook. f. Fl. Brit. Ind.* iii. p. 258.

Conyza veronicæfolia, *Wall. Cat.* n. 3005; *DC. Prodr.* v. p. 382; *Benth. Fl. Hongk.* p. 176; *Henriques in Bolet. Soc. Brot.* iii. p. 147.

FORMOSA: Tamsui (*Oldham*, 248!); SZECHUEN: Chung city (*Faber*!); KWANGTUNG (*Silva* ex *Henriques*); HONGKONG (*Wilford*! *Wright*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Afghanistan to the Khasia mountains and southward in Malaya.

3. **Conyza leucodasys,** *Miq. in Journ. de Bot. Néerl.* i. p. 103.

KWANGTUNG? (*Krone* ex *Miquel*).

From the description this does not appear to be a *Conyza*.

4. **Conyza syringæfolia**, *Meyen et Walp. in Nov. Act. Nat. Cur.* xix. Suppl. 1, p. 263; *Walp. Rep.* vi. p. 133.

KWANGTUNG: Syngmoon (*Meyen* ex *Walpers*).

The description of this plant agrees in many respects with *Microglossa volubilis*.

## 71. COMPOSITÆ: INULOIDEÆ.

1. **Blumea balsamifera**, *DC. Prodr.* v. p. 447; *Hook. f. Fl. Brit. Ind.* iii. p. 270; *Hanbury, Science Papers*, pp. 393–395; *Bretschn. Early Res.* p. 157; *Dyer in Journ. Linn. Soc.* xx. p. 415.

Conyza balsamifera, *Linn. Sp. Pl.* ed. 2, p. 1208.

Baccharis Salvia, *Lour. Fl. Cochinch.* p. 494.

FORMOSA: west coast (*Wilford*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Tropical India and Malaya.

A kind of camphor is extracted from this plant in China.

2. **Blumea chinensis**, *DC. Prodr.* v. (1836), p. 444; *Benth. Fl. Hongk.* p. 177; *Henriq. in Bolet. Soc. Brot.* iii. p. 147; *Hook. f. Fl. Brit. Ind.* iii. p. 268, non *Hook. et Arn.* nec *Walp.*

Conyza chinensis, *Linn. Sp. Pl.* ed. 2, p. 1208, excl. syn. ex *DC.*; *Lour. Fl. Cochinch.* p. 496.

FOKIEN: Amoy interior (*Swinhoe*!); KWANGTUNG (*Silva* ex *Henriques*); HONGKONG (*Champion*! *Wright*! *Wilford*! *Seemann*!). Mus. Brit.; Herb. Kew.

Eastern India and Java.

[*Blumea chinensis*, Hook. et Arn. (Bot. Beech. Voy. 1841, p. 195), syn. ? *Baccharis chinensis*, Lour. (Fl. Cochinch. p. 494), is not represented in the Kew Herbarium by an authenticated specimen; and *Blumea chinensis*, Walp. (in Nov. Act. Nat. Cur. xix. Suppl. 1, p. 294, et Rep. vi. p. 138), is perhaps a form of *B. hieracifolia*, for the author remarks "summopere affinis *B. hieracifoliæ*, DC." It is the *Vernonia conyzoides* of the same author, *loc. cit.* p. 254, but not of DeCandolle.]

3. **Blumea glomerata**, *DC. in Wight Contrib. Bot. Ind.* p. 15; *Prodr.* v. p. 443; *Hook. f. Fl. Brit. Ind.* iii. p. 262.

Biumea amethystina, *Hance in Journ. Bot.* 1868, p. 173.

KWANGTUNG: along the West river (*Sampson*, hb. *Hance*, 12815!). Mus. Brit.; Herb. Kew.

Widely spread in India, and also occurring in Java and the Philippine Islands.

4. **Blumea hieracifolia**, *DC. Prodr.* v. p. 442; *Benth. Fl. Hongk.* p. 178; *Henriq. in Bolet. Soc. Brot.* iii. p. 147; *Hook. f. Fl. Brit. Ind.* iii. p. 263 (varietates).

Blumea crinita, *Steetz in Seem. Bot. Voy. 'Herald,'* p. 387, non *Arn.*

FORMOSA: Tamsui (*Oldham*, 249!); SZECHUEN: Omei (*Faber*!); KWANGTUNG: Whampoa (*Hance*, 307!); HONGKONG (*Champion*! *Hance*, 306! *Seemann*!). Mus. Brit.; Herb. Kew.

Widely spread in India, and also found in Java.

5. **Blumea lacera**, *DC. in Wight Contrib. Ind. Bot.* p. 14; *Prodr.* v. p. 436; *Benth. Fl. Hongk.* p. 178; *Hook. f. Fl. Brit. Ind.* iii. p. 263.

CHINA: without locality (*Fortune*, 172!); KWANGTUNG: Whampoa (*Hance*, 5881!), Fatshan (*Wenyon*!); HONGKONG (*Wilford*!); KWANGSI (*Wenyon*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and Australia.

Var. **glandulosa**, *Hook. f. Fl. Brit. Ind.* iii. p. 263; *DC. Prodr.* v. p. 438 (species).

FORMOSA (*Oldham*, 251/1!). Herb. Kew.

India.

Ford, Kwangtung 99, is probably also a variety of *B. lacera*.

6. **Blumea laciniata**, *DC. Prodr.* v. p. 436; *Hook. f. Fl. Brit. Ind.* iii. p. 264.

Blumea runcinata *et* B. sonchifolia, *DC. Prodr.* v. p. 438.

Blumea glandulosa, *Benth. Fl. Hongk.* p. 177, non *DC.*

FORMOSA: Tamsui (*Oldham*, 250!), south (*Maries*!); SZECHUEN (*Faber*?); HONGKONG (*Wilford*! *Kuntze*!). Mus. Brit.; Herb. Kew.

Nearly all over India and Malaya.

7. **Blumea myriocephala**, *DC. Prodr.* v. p. 445; *Hook. f. Fl. Brit. Ind.* iii. p. 269.

Conyza lanceolaria, *Roxb. Fl. Ind.* iii. p. 432.

FORMOSA: Tamsui (*Oldham*, 251!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Common in Eastern India and in Birma.

8. **Blumea sericans,** *Hook. f. Fl. Brit. Ind.* iii. p. 262.

Blumea barbata, var. β sericans, *Kurz in Journ. As. Soc. Beng.* xlvi. 2 (1877), p. 188.

Blumea hieracifolia, *Benth. Fl. Hongk.* p. 178, var. holosericea.

FORMOSA: west coast (*Wilford*, 356!); HONGKONG (*Champion*! *Wright*!); KWANGSI (*Wenyon*!). Mus. Brit.; Herb. Kew.

Chittagong, Birma, and Martaban.

9. **Blumea Wightiana,** *DC. in Wight Contrib. Ind. Bot.* p. 14; *Prodr.* v. p. 435; *Benth. Fl. Hongk.* p. 178; *Hook. f. Fl. Brit. Ind.* iii. p. 261.

HONGKONG (*Harland*!). Herb. Kew.

Tropical Asia, Africa and Australia.

1. **Laggera alata,** *Schultz-Bip.*; *Clarke, Comp. Ind.* p. 91; *Hook. f. Fl. Brit. Ind.* iii. p. 271.

Blumea alata, *DC. Prodr.* v. p. 448; *Benth. Fl. Hongk.* p. 177; *Seem. Bot. Voy. 'Herald,'* p. 387; *Wight, Ic. Pl. Ind. Or.* t. 1101.

FOKIEN: Amoy interior (*Swinhoe*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 3228!); HONGKONG (*Seemann*! *Hance*, 304!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia, Africa and Madagascar.

1. **Pluchea indica,** *Less. in Linnæa*, 1831, p. 150; *DC. Prodr.* v. p. 451; *Benth. Fl. Hongk.* p. 179; *Hook. f. Fl. Brit. Ind.* iii. p. 272; *Wight, Ill. Ind. Pl.* t. 131.

Conyza indica, *Miq. Fl. Ind. Bat.* ii. p. 58, et *in Journ. de Bot. Néerl.* i. p. 104.

FORMOSA (*Oldham*, 289!); KWANGTUNG (*Tate*!), Whampoa (*Hance*, 78!); HONGKONG (*Wright*!). Mus. Brit.; Herb. Kew.

India and Malaya.

[*Pluchea hirsuta*, Less. (Linnæa, vi. p. 150), syn. *Conyza hirsuta*, Linn. (Lour. Fl. Cochinch. p. 496), and *Pluchea Dioscoridis*, DC., syn. *Baccharis Dioscoridis*, Linn. (Lour. Fl. Cochinch. p. 494), are recorded from China by Loureiro, but no doubt erroneously.]

2. **Pluchea? pteropoda,** *Hemsl.*, n. sp. (Plate XI.)

*Herba*, ut videtur, procumbens, subcarnosa, undique glabra, caulibus brevibus. *Folia* obovato-spathulata, 1–1½ poll. longa, grosse paucidentata, deorsum attenuata. *Capitula* discoidea,

solitaria vel 2–4 aggregata, subterminalia, 3–4 lineas diametro, pedunculis insigniter bialatis; involucri bracteæ pluriseriatæ, subscariosæ, exteriores latissimæ, vix acutæ, interiores angustiores, acutæ. *Flores* dimorphi, exteriores filiformi, feminei, interiores hermaphroditi, antheris caudatis. *Achænia* (matura non visa) puberula; pappi setæ numerosæ, corolla æquales vel paullo breviores, tenues, molles.

KWANGTUNG: Pakhoi (*Playfair* !). Herb. Kew.

There is no doubt respecting the affinities of this very distinct species, but the achenes are so very young that the genus cannot be determined with certainty. In habit and quite herbaceous character it differs from all the other species of *Pluchea*. It resembles *Epaltes australis* in habit and foliage.

1. **Epaltes australis**, *Less. in Linnæa*, v. p. 148; *DC. Prodr.* v. p. 462; *Benth. Fl. Austr.* iii. p. 530.

Sphæromorphæa petiolaris, *DC. Prodr.* vi. p. 140.

FORMOSA: Tamsui (*Oldham*, 288 !); KWANGTUNG: Pakhoi (*Playfair* !). Herb. Kew.

Eastern Australia.

1. **Sphæranthus africanus**, *Linn. Sp. Pl.* ed. 2, p. 1314; *Hook. f. Fl. Brit. Ind.* iii. p. 275.

Sphæranthus microcephalus, *Willd. Sp. Pl.* iii. p. 2395; *DC. Prodr.* v. p. 369.

Sphæranthus cochinchinensis, *Lour. Fl. Cochinch.* p. 510; *DC. Prodr.* v. p. 371?

CHINA: without locality (*Staunton* !); KWANGTUNG: Whampoa (*Hance*, 1924 !). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and Australia.

[*Sphæranthus chinensis*, Linn. (Mant. i. p. 119), is recorded as a native of India only.]

1. **Leontopodium alpinum**, *Cass. in Dict. Sc. Nat.* xxv. p. 474; *DC. Prodr.* vi. p. 275; *Hook. f. Fl. Brit. Ind.* iii. p. 279; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 28; *Reichb. Fl. Germ.* t. 947; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 8.

CHIHLI: Pohuashan (*Bullock* !), Siaowutaishan (*Hancock* ex *Maximowicz*); KANSUH (ex *Kanitz*). Herb. Kew.

Alps of Europe and Central Asia and the Himalaya Mountains, where it ascends to nearly 18,000 feet.

2. **Leontopodium japonicum,** *Miq. in Ann. Mus. Lugd.-Bat.* ii. p. 178.

Gnaphalium Sieboldianum, *Franch. et Savat. Enum. Pl. Jap.* i. p. 242.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

Japan.

An imperfect specimen in the Kew Herbarium, from Yunnan, collected by Mr. F. S. A. Bourne, is this or a very closely allied species.

3. **Leontopodium sibiricum,** *Cass. Dict. Sc. Nat.* xxv. p. 475; *DC. Prodr.* vi. p. 276; *Hance in Journ. Bot.* 1878, p. 12; *Debeaux, Fl. Tchef.* p. 84; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 227, et *Pl. David.* p. 162; *Ledeb. Fl. Ross.* ii. p. 614.

Antennaria leontopodina, *DC. Prodr.* vi. p. 269; *Hance in Journ. Bot.* 1878, p. 12.

Gnaphalium leontopodoides, *Willd. Sp. Pl.* iii. p. 1893; *Franch. et Savat. Enum. Pl. Jap.* i. p. 243.

CHIHLI: Peking, western hills (*Bretschneider*! *Hancock*! *Bushell*!); SHINGKING: near Moukden (*Webster*!), Talienhwan (*Swinhoe*! *Birnie*!), Jaoling (*Ross*!); SHANTUNG: Chefoo (*Forbes*! *Perry*!). Mus. Brit.; Herb. Kew.

Altai and Dahuria eastward.

4. **Leontopodium sinense,** *Hemsl.*, n. sp. (Plate XII.)

*Herba* perennis, tomentosa, caulibus simplicibus gracillimis, 12–18 poll. altis, internodiis foliis multo brevioribus. *Folia* sessilia, semiamplexicaulia, oblonga, 9–12 lineas longa, apiculata, utrinque araneoso-tomentosa vel lanata, discoloria; folia sub capitula involucrum falsum formantia unicoloria, basi attenuata. *Capitula* discoidea, unisexualia, sessilia, conferta; involucri bracteæ pauciseriatæ, oblongæ, extus lanatæ, lamina colorata (ut in *L. alpinum*) minutissima vel omnino carens. *Flores* involucrum vix excedentes. *Achænia* (immatura tantum visa) appresse puberula; pappi setæ corollam æquantes, minute scabridæ, basi vix connatæ.

SZECHUEN: Mount Omei, 4500 feet (*Faber*!). Herb. Kew.

This resembles *L. alpinum,* var. *Stracheyi,* Hook. f. (Fl. Brit. Ind. iii. p. 279), differing in the tomentose stems and absence of coloured tips to the involucral bracts. It is readily distinguished from *L. japonicum* by its half stem-clasping leaves and its crowded heads.

1. **Anaphalis adnata,** *DC. Prodr.* vi. p. 274; *Clarke, Comp. Ind.* p. 108; *Hook. f. Fl. Brit. Ind.* iii. p. 282.

KWANGTUNG: Lofaushan at 3100 feet (*Ford,* 12!). Mus. Brit.; Herb. Kew.

Mountains of North India, from Simla to Khasia, and in Martaban and Birma.

2. **Anaphalis alata,** *Maxim. in Mél. Biol.* xi. p. 232.

KANSUH: western alpine region (*Przewalski* ex *Maximowicz*).

From the copious specimens before us of what we regard as *A. pterocaulon,* Maxim., we suspect this may be a variety of that species.

3. **Anaphalis cuneifolia,** *Hook. f. Fl. Brit. Ind.* iii. p. 280.

SZECHUEN: summit of Mount Omei (*Faber*!). Herb. Kew.

North India, from Kashmir to Sikkim, at 8000–13,000 feet.

4. **Anaphalis Hancockii,** *Maxim. in Mél. Biol.* xi. p. 233; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 9.

Anaphalis triplinervis, *Hance in Journ. Bot.* 1878, p. 12, non *Clarke.*

CHIHLI: Peking mountains, grassy slopes at 7000 feet (*Hancock,* 16!); KANSUH (ex *Kanitz*). Mus. Brit.; Herb. Kew.

5. **Anaphalis lactea,** *Maxim. in Mél. Biol.* xi. p. 234.

KANSUH: western alpine region around Koko-Nor, at an altitude of 10,200 feet (*Przewalski* ex *Maximowicz*).

6. **Anaphalis margaritacea,** *Benth. et Hook. f. Gen. Plant.* ii. p. 303; *Clarke, Comp. Ind.* p. 103; *Maxim. in Mél. Biol.* xi. p. 235.

Antennaria margaritacea, *R. Br.*; *DC. Prodr.* vi. p. 270; *Ledeb. Fl. Ross.* ii. p. 613; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 9.

Gnaphalium margaritaceum, *Linn. Sp. Pl.* ed. 1, p. 850; *Franch. et Savat. Enum. Pl. Jap.* i. p. 242; *Herder in Pl. Radd.* ii. 2. p. 102 (varietates).

HUPEH: Ichang, Patung, and Nanto (*A. Henry,* 927!); KANSUH (ex *Kanitz*). Herb. Kew.

Amur to Kamtschatka and Japan, widely spread in North America, and naturalized in Europe.

Dr. Henry sends a narrow-leaved variety intermediate between the ordinary form and Franchet's variety *angustifolia.*

*Anaphalis cinnamomea*, Clarke (*Antennaria cinnamomea*, DC.), a common Indian form, is hardly separable from this; but Sir Joseph Hooker (Fl. Brit. Ind. iii. p. 281) retains it, and refers the Eastern Asiatic specimens to the same; while Dr. Gray (Synop. Fl. N. Am. ed. 2, i. part 2, p. 233) refers them to *A. margaritacea*.

7. **Anaphalis nubigena,** *DC. Prodr.* vi. p. 272; *Hook. f. Fl. Brit. Ind.* iii. p. 279; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 12.

SZECHUEN (ex *Kanitz*).

Alpine regions in the Himalaya mountains at 12,000 to 16,000 feet.

8. **Anaphalis pterocaulon,** *Maxim. in Mél. Biol.* xi. p. 233.

Gnaphalium pterocaulon, *Franch. et Savat. Enum. Pl. Jap.* ii. p. 405.

KIANGSI: Kiukiang (*David*, 757, ex *Franchet*); HUPEH: Ichang, Patung, and neighbourhood (*A. Henry*, 163, 278, 1704, 1811, 2300, 2518, and several other numbers!); SZECHUEN: Wushan gorge and Mount Omei at 4500 feet (*Faber*!). Herb. Kew.

Japan.

9. **Anaphalis sinica,** *Hance in Journ. Bot.* 1874, p. 261; *Maxim. in Mél. Biol.* xi. p. 234.

KIANGSI: Kiukiang (*Mœllendorff*! *Shearer*!). Mus. Brit.; Herb. Kew.

Very much like *A. pterocaulon*, but the leaves are not decurrent.

10. **Anaphalis,** sp. nov.? ex affinitate *A. pterocaulonis*, a qua differt foliis non decurrentibus, involucri bractearum lamina latiore patentiore.

SZECHUEN: summit of Mount Omei (*Faber*, 382!). Herb. Kew.

1. **Gnaphalium hypoleucum,** *DC. in Wight, Contrib. Bot. Ind.* p. 21; *Prodr.* vi. p. 222; *Hook. f. Fl. Brit. Ind.* iii. p. 288; *Wight, Ic. Pl. Ind. Or.* t. 1114.

Gnaphalium amoyense, *Hance in Journ. Bot.* 1868, p. 174, et 1878 p. 108.

Gnaphalium confertum, *Benth. in Hook. Lond. Journ. Bot.* i. p. 488; *Fl. Hongk.* p. 187.

FOKIEN: Amoy (*Hance*, 1420!); HUPEH: Ichang and Patung district (*A. Henry*!); HONGKONG (*Hinds*!). Mus. Brit.; Herb. Kew.

Japan and mountains of Northern and Southern India and Abyssinia.

2. **Gnaphalium indicum,** *Linn. Sp. Pl.* ed. 1, p. 852; *DC. Prodr.* vi. p. 231; *Benth. Fl. Hongk.* p. 188; *Hook. f. Fl. Brit. Ind.* iii. p. 289.

FORMOSA (*Oldham*, 272!); HONGKONG (*Wright*! *Wilford*!). Mus. Brit.; Herb. Kew.

Tropical Asia, Africa, and Australia.

3. **Gnaphalium japonicum,** *Thunb. Fl. Jap.* p. 311; *DC. Prodr.* vi. p. 237; *Benth. Fl. Austr.* iii. p. 653; *Hance in Journ. Bot.* 1880, p. 262.

Gnaphalium involucratum, *Forst. Prodr. Fl. Ins. Austr.* p. 291; *DC. Prodr.* vi. p. 235; *Bot. Mag.* t. 2582.

KIANGSU: Shanghai (*Maingay*!); FORMOSA: Tamsui (*Oldham*, 273!); HUPEH: Ichang, Patung, and neighbourhood (*A. Henry*!); SZECHUEN: summit of Mount Omei (*Faber*!); COREAN ARCHIPELAGO (*Oldham*, 427!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan, southward to Australia and New Zealand, where it is generally spread and abundant.

4. **Gnaphalium multiceps,** *Wall.*; *DC. Prodr.* vi. p. 222; *Benth. Fl. Hongk.* p. 188; *Henriq. in Bolet. Soc. Brot.* iii. p. 148; *Franch. et Savat. Enum. Pl. Jap.* i. p. 241; *Franchet, Pl. David.* p. 163.

Gnaphalium luteo-album, *Linn.*, var. multiceps, *Hook. f. Fl. Brit. Ind.* iii. p. 288.

Gnaphalium javanum, G. ramigerum, *et* G. confusum, *DC. Prodr.* vi. p. 222.

KIANGSU: Shanghai (*Bullock*! *Carles*!); CHEKIANG: Ningpo (*Cooper*!); KIANGSI: Kiukiang (*David* ex *Franchet*); FOKIEN: Foochow (*Perry*!); FORMOSA (*Oldham*, 274!); HUPEH: Ichang, Patung, and neighbourhood (*A. Henry*!); SZECHUEN: Chungking (*Faber*!); KWANGTUNG: Lofaushan (*Ford*!), Maisaou (*Tate*!); HONGKONG (*Champion*! *Wright*! *Wilford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan and North India.

The Chinese and Japanese specimens referred here are so easily distinguished from ordinary *G. luteo-album* that we have not followed the author of the 'Flora of British India' in treating *G. multiceps* as a variety of that species. With the exception of a specimen from Pakhoi, collected by Mr. Playfair, all the Chinese specimens are of a bright yellow, and the brown colour of this may be due to age or injury in drying. The Indian and Australian specimens are all brown, but perhaps there is no other difference.

5. **Gnaphalium purpureum,** *Linn. Sp. Pl.* ed. 1, p. 854; *DC. Prodr.* vi. p. 232; *Benth. Fl. Hongk.* p. 188.

HONGKONG (*Hance*! *Wright*!). Mus. Brit.; Herb. Kew.

Widely spread in North and South America, but most probably a colonist in Hongkong.

6. **Gnaphalium uliginosum,** *Linn. Sp. Pl.* ed. 1, p. 856; *DC. Prodr.* vi. p. 230; *Ledeb. Fl. Ross.* ii. p. 609; *Maxim. Prim. Fl. Amur.* p. 163.

SHINGKING: Newchang (*Webster*!). Herb. Kew.

Europe to the Amur, and in North America.

1. **Inula ammophila,** *Bunge in DC. Prodr.* v. p. 470; *Turcz. in Bull. Soc. Nat. Mosc.* 1837, vii. p. 154; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473; *Franchet, Pl. David.* p. 163.

CHIHLI: near Peking (*Kirilow* ex *Turczaninow*), Siaowutaishan (*Hancock* ex *Maximowicz in litt.*).

Mongolia.

2. **Inula Britannica,** *Linn. Sp. Pl.* ed. 1, p. 882; *DC. Prodr.* v. p. 467; *Ledeb. Fl. Ross.* ii. p. 517; *Maxim. Prim. Fl. Amur.* p. 149; *Regel, Fl. Ussur.* p. 89; *Franch. et Savat. Enum. Pl. Jap.* ii. p. 400; *Franchet, Pl. David.* p. 164, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 225; *Hance in Journ. Bot.* 1887, p. 12 (var. chinensis).

Inula chinensis, *Rupr. ex Maxim. in Prim. Fl. Amer.* p. 149; *Debeaux, Fl. Tchef.* p. 77, et *Fl. Shangh.* p. 35.

Inula salicina, *Bunge, Enum. Pl. Chin. Bor.* n. 214, nec alior. fide *Maxim.*

Inula repanda, *Turcz. in Bull. Soc. Nat. Mosc.* 1837, vii. p. 154; *Maxim. Prim. Fl. Amer.* p. 150.

CHIHLI to KWANGTUNG, apparently common (*Bretschneider*! *Maingay*! *Shearer*! *A. Henry*! *Ford*!). Mus. Brit.; Herb. Kew.

Western Europe to Eastern Asia.

Var. **japonica**, *Franch. et Savat. Enum. Pl. Jap.* ii. p. 401; *Thunb. Fl. Jap.* p. 313 (species).

CHIHLI: Peking (*Bushell*! *Swinhoe*!); SHANTUNG (*Maingay*!); FOKIEN: Chefoo (*Forbes*!); COREA (*Swinhoe*!); COREAN ARCHIPELAGO (*Oldham*, 405!). Herb. Kew.

Japan.

Var. **linariæfolia**, *Regel, Fl. Ussur.* p. 90.

Inula linariæfolia, *Turcz. in Bull. Soc. Nat. Mosc.* 1837, vii. p. 154.

CHIHLI: Peking (*Mœllendorff*! *Williams*! *Bullock*! *Hancock*!); SHINGKING: Moukden (*Webster*!); HUPEH: Ichang (*A. Henry*!). Mus. Brit.; Herb. Kew.

The extreme forms referred to this species are very different, and perhaps we have not disposed of them in the most satisfactory manner; but there are intermediate varieties difficult to assign. Franchet and Debeaux retain *I. linariæfolia* as a species.

3. **Inula Cappa**, *DC. Prodr.* v. p. 469; *Benth. Fl. Hongk.* p. 180; *Hook. f. Fl. Brit. Ind.* iii. p. 295; *Henriq. in Bolet. Soc. Brot.* iii. p. 147.

Inula pseudo-cappa, *DC. Prodr.* v. p. 469.

Duhaldea chinensis, *DC. Prodr.* v. p. 366; *Steetz in Seem. Bot. Voy. 'Herald,'* p. 388; *Miq. in Journ. de Bot. Néerl.* i. p. 104.

Blumea chinensis, *Hook. et Arn. Bot. Beech. Voy.* p. 195, non *DC.*

Vernonia congesta, *Benth. in Hook. Lond. Journ. Bot.* i. p. 487, et *Hook. Kew Journ. Bot.* iv. p. 232.

Vernonia eriosematoides, *Walp. in Nov. Act. Nat. Cur.* xix. Suppl. 1, p. 254; *Rep.* ii. p. 679.

Moquinia eriosematoides, *Walp. Rep.* vi. p. 317.

SOUTH CHINA: without locality (*Staunton*!); FOKIEN: Amoy interior (*Swinhoe*!); KWANGTUNG: Macao &c. (*Calléry*! *Meyen*!); HONGKONG (*Hinds*! *Wright*! *Seemann*! *Champion*! *Wilford*!); HAINAN (*B. C. Henry*!). Mus. Brit.; Herb. Kew.

North India from Kumaon eastward, Birma, and Malay Archipelago.

4. **Inula racemosa,** *Hook. f. Fl. Brit. Ind.* iii. p. 292.

Inula Royleana, *Clarke, Comp. Ind.* p. 118, non *DC.*

HUPEH : Patung district, cultivated (*A. Henry* !). Herb. Kew.

Also wild and cultivated in the Western Himalaya.

Dr. Henry states that it is cultivated for medicinal purposes, and that it was originally brought from Szechuen to Hupeh.

5. **Inula salicina,** *Linn. Sp. Pl.* ed. 1, p. 882; *DC. Prodr.* v. p. 466; *Maxim. Prim. Fl. Amur.* p. 149; *Boiss. Fl. Or.* iii. p. 187; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 225.

Inula involucrata, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 171; *Franch. et Savat. Enum. Pl. Jap.* i. p. 233, et ii. p. 401.

Inula cordata, *Boiss. Diagn. Pl. Nov.* ser. 1, iv. p. 3, et *Fl. Or.* iii. p. 188.

SHINGKING : Moukden (*Webster* !), Talienhwan (*Birnie* !); SHANTUNG : Chefoo (*Fauvel* ex *Franchet*); COREA : Soul mountains (*Carles* !). Mus. Brit.; Herb. Kew.

South-eastern Europe to Mandshuria and Japan.

1. **Nannoglottis carpesioides,** *Maxim. in Mél. Biol.* xi. p. 236.

KANSUH : in alpine woods (*Przewalski* ex *Maximowicz*).

1. **Carpesium abrotanoides,** *Linn. Sp. Pl.* ed. 1, p. 860; *DC. Prodr.* vi. p. 282; *Hook. f. Fl. Brit. Ind.* iii. p. 301; *Maxim. in Mél. Biol.* ix. p. 290; *Lamk. Ill.* t. 696.

KIANGSU : Shanghai (*Maingay* ! *Carles* ! *Bullock* !); FORMOSA (*Oldham*, 267 !); HUPEH : Ichang, Patung, and neighbourhood (*A. Henry* !); KWANGTUNG (*Sampson*, hb. *Hance*, 10978 ! *Tate* !). Mus. Brit.; Herb. Kew.

Eastern Europe to North India and Japan.

2. **Carpesium cernuum,** *Linn. Sp. Pl.* ed. 1, p. 859; *DC. Prodr.* vi. p. 281; *Maxim. in Mél. Biol.* ix. p. 286; *Franchet, Pl. David.* p. 164, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 227; *Hook. f. Fl. Brit. Ind.* iii. p. 300; *Clarke, Comp. Ind.* p. 130.

CHIHLI : Peking mountains (*David*, 2441, ex *Franchet*); CHEKIANG : Ningpo mountains (*Faber* !); HUPEH : Ichang, Patung, and Nanto (*A. Henry* !); SZECHUEN : various localities (*Faber* !). Mus. Brit.; Herb. Kew.

Central Europe to Japan.

Var. **lanatum**, *Clarke, Comp. Ind.* p. 130; *Hook. f. Fl. Brit. Ind.* iii. p. 301.

HUPEH: Patung district (*A. Henry*!); SZECHUEN: Mount Omei at 4000 feet (*Faber*!). Herb. Kew.

North India in the Sikkim and Khasia mountains.

3. **Carpesium minus**, *Hemsl.*, n. sp. (Plate XIII.)

*Herba* perennis, erecta, 6–12 poll. alta, gracilis, parce lanata, caulibus ramulosis. *Folia* crassiuscula, inferiora longe petiolata, sursum gradatim minora, oblongo-lanceolata vel suprema linearia, maxima cum petiolo 4 poll. longa, pauce calloso-denticulata, obtusa vel subacuta, supra scabrida, subtus parce pilosa, venis primariis lateralibus utrinque 5–6, inter se anastomosantibus. *Capitula* discoidea, erecta, terminales, graciliter pedunculata, maxima 3–4 lin. diametro; involucri bracteæ pluriseriatæ (2–3 exteriores interdum foliaceæ), subscariosæ, glabræ vel cito glabrescentes, oblongæ, obtusissimæ vel fere truncatæ, interiores apice crenulatæ, erectæ, flores fere æquantes; receptaculum leviter convexum, glabrum. *Flores* lutei, glabri; corolla subcylindrica. *Achænia* calva, teretia, apice leviter glandulosa.

SZECHUEN: Mount Omei at 4000 feet (*Faber*!). Herb. Kew.

This species is characterized by a dwarf, slender habit, narrow, rather thick leaves, and small, erect, slenderly pedunculate flowerheads.

4. **Carpesium trachelifolium**, *Less. in Linnæa*, vi. p. 233; *DC. Prodr.* vi. p. 282; *Hook. f. Fl. Brit. Ind.* iii. p. 301.

Carpesium cernuum, var. trachelifolium, *Clarke, Comp. Ind.* p. 131.

HUPEH: Patung district (*A. Henry*, 2387, 2466, 4987, 5193!). Herb. Kew.

North India, from Kashmir to Sikkim.

Var.? foliis lanceolatis.

HUPEH: Ichang (*A. Henry*!); SZECHUEN: Mount Omei (*Faber*!). Herb. Kew.

[*Buphthalmum oleraceum*, Lour. (Fl. Cochinch. p. 506), is an obscure plant, apparently not of the genus to which it is referred.]

1. **Anisopappus chinensis**, *Hook. et Arn. Bot. Beech. Voy.* p. 196; *Benth. Fl. Hongk.* p. 180; *Henriq. in Bolet. Soc.*

*Brot.* iii. p. 147; *Oliver, Fl. Trop. Afr.* iii. p. 369; *Miq. in Journ. Bot. Néerl.* i. p. 104.

Verbesina chinensis, *Linn. Sp. Pl.* ed. 1, p. 901; *DC. Prodr.* v. p. 618.

KWANGTUNG: Lofaushan (*Ford*!) HONGKONG (*Champion*!). Mus. Brit; Herb. Kew.

Eastern tropical Africa, and recently collected by Mr. T. H. Aplin in the Shan States, east of Birma.

## 71. COMPOSITÆ: HELIANTHOIDEÆ.

1. **Adenocaulon bicolor,** *Hook. Bot. Misc.* i. p. 19, t. 15; *DC. Prodr.* vii. p. 207; *Hook. f. Fl. Brit. Ind.* iii. p. 302; *A. Gray, Synop. Fl. N. Am.* i. 2, p. 237.

Adenocaulon adhærescens, *Maxim. Prim. Fl. Amur.* p. 152; *Franch. et Savat. Enum. Pl. Jap.* i. p. 221.

Adenocaulon himalaicum, *Edgew. in Trans. Linn. Soc.* xx. p. 64; *Clarke, Comp. Ind.* p. 132.

SHINGKING: Chienshan (*Ross*!); HUPEH: Patung district (*A. Henry*!); SZECHUEN: Mount Omei at 4000 feet (*Faber*!). Herb. Kew.

North India, from Simla to Sikkim, Mandshuria and Japan, and in Western North America, from British Columbia to Southern California and eastward to Lake Superior.

Gray treats the North-American plant as a distinct species without indicating the differential characters. Whether that view be accepted or not the distribution of the genus is quite exceptional. There are one or two distinct species which inhabit Chili.

1. **Sheareria nana,** *S. Moore in Journ. Bot.* 1875, p. 227, t. 165.

Sheareria Polii, *Franchet in Journ. Bot.* 1878, p. 257, t. 198; *Pl. David.* p. 166.

CHEKIANG: Meichi (*Poli* ex *Franchet*); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!). Herb. Kew.

The specimens on which Mr. Moore founded the genus are very meagre and imperfect, hence Mr. Franchet believed he had a second species; but with copious good specimens from Dr. Henry before us we have no hesitation in uniting *S. Polii* with *S. nana*.

1. **Xanthium Strumarium,** *Linn. Sp. Pl.* ed. 1, p. 987; *Lour. Fl. Cochinch.* p. 563; *DC. Prodr.* v. p. 523; *Steetz in Seem. Bot. Voy. 'Herald,'* p. 390; *Benth. Fl. Hongk.* p. 181; *Hook. f. Fl. Brit. Ind.* iii. p. 303; *Debeaux, Fl. Tchef.* p. 91, et *Fl. Tients.* p. 27; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 225.

Xanthium indicum, *König* ex *Roxb. Fl. Ind.* iii. p. 601; *DC. Prodr.* v. p. 523.

Xanthium chinense, *Mill. Dict.* ed. 8, n. 4.

Apparently common in the warmer parts of CHINA (*Wright! Oldham! Maingay! A. Henry!* &c.). Mus. Brit.; Herb. Kew.

A common weed in most warm countries, supposed to be of American origin.

1. **Siegesbeckia orientalis,** *Linn. Sp. Pl.* ed. 1, p. 900; *DC. Prodr.* v. p. 495; *Lour. Fl. Cochinch.* p. 504; *Benth. Fl. Hongk.* p. 182; *Hook. f. Fl. Brit. Ind.* iii. p. 304; *Franchet, Pl. David.* p. 164; *Henriques in Bolet. Soc. Brot.* iii. p. 147.

CHIHLI and COREA to FORMOSA and KWANGTUNG (*Bretschneider! Webster! Oldham! Wright!* &c.). Mus. Brit.; Herb. Kew.

Cosmopolitan in warm countries and extending into some temperate regions.

1. **Eclipta alba,** *Hassk. Pl. Jav. Rar.* p. 528, et *in Miq. Fl. Ind. Bat.* ii. p. 65; *Benth. Fl. Hongk.* p. 181; *Henriq. in Bolet. Soc. Brot.* iii. p. 147; *Hook. f. Fl. Brit. Ind.* iii. p. 304; *Debeaux, Fl. Shangh.* p. 35; *Franchet, Pl. David.* p. 165, et *in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 225.

Eclipta erecta, *Linn., et* E. prostrata, *Linn. Mant.* p. 286; *DC. Prodr.* v. p. 490; *Miq. in Journ. de Bot. Néerl.* i. p. 104.

Eclipta thermalis, *Bunge, Enum. Pl. Chin. Bor.* p. 39.

Eclipta marginata, *Boiss. Fl. Or.* iii. p. 249.

CHIHLI to HONGKONG (*Bretschneider! Oldham! Wright!* &c.). Mus. Brit.; Herb. Kew.

Generally dispersed in tropical and subtropical countries and extending into some temperate regions.

1. **Wedelia biflora,** *DC. Prodr.* v. p. 546; *Benth. Fl. Hongk.* p. 183; *Hook. f. Fl. Brit. Ind.* iii. p. 306; *Hance in Journ. Linn. Soc.* xiii. p. 108.

Wollastonia biflora, *DC. Prodr.* v. p. 546; *Henriq. in Bolet. Soc. Brot.* iii. p. 148.

CHINA: without locality (*Millett*!); FORMOSA (*Oldham*, 266!); KWANGTUNG: Macao (*Calléry*); HONGKONG (*Wright*!). Mus. Brit.; Herb. Kew.

India and Malaya, chiefly in maritime districts.

2. **Wedelia calendulacea,** *Less. Syn. Compos.* p. 222; *DC. Prodr.* v. p. 539; *Benth. Fl. Hongk.* p. 182; *Henriq. in Bolet. Soc. Brot.* iii. p. 148; *Miq. in Journ. de Bot. Néerl.* i. p. 104; *Hook. f. Fl. Brit. Ind.* iii. p. 182; *Wight, Ic. Pl. Ind. Or.* t. 1107.

Verbesina calendulacea, *Linn.*; *Lour. Fl. Cochinch.* p. 506; *Bretschn. Early Res.* p. 158.

CHINA: without locality (*Fortune*, 122!); KIANGSU: Shanghai (*Maingay*!); FORMOSA: Tamsui (*Oldham*, 265! *Swinhoe*!); KWANGTUNG: Macao &c. (*Callėry*!), Lofaushan (*Ford*!); HONGKONG (*Champion*! *Wilford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Widely spread in tropical Asia.

3. **Wedelia prostrata,** *Hemsl.*

Wollastonia prostrata, *Hook. et Arn. Bot. Beech. Voy.* p. 265.

Verbesina prostrata, *Hook. et Arn. Bot. Beech. Voy.* p. 195.

SHINGKING: Talienhwan (*Swinhoe*, hb. *Hance*, 6541!); FORMOSA: near Tamsui (*Oldham*, 287! *Hancock*!); PESCADORES (*Swinhoe*!); KWANGTUNG: Macao (*Tate*!), Pakhoi (*Playfair*!); LUCHU ARCHIPELAGO (*Beechey*!). Mus. Brit.; Herb. Kew.

The specimens that we have seen from Japan named *Wedelia calendulacea* appear to be *W. prostrata.*

4. **Wedelia urticæfolia,** *DC. Prodr.* v. p. 539 (quoad var. β. tantum); *Hook. f. Fl. Brit. Ind.* iii. p. 306.

KWANGTUNG: without locality (*Ford*!). Herb. Kew.

Western peninsula of India.

[*Helianthus giganteus, Verbesina spicata,* and *Coreopsis biternata,* Lour. (Fl. Cochinch. pp. 507–509), are all obscure plants.]

1. **Bidens bipinnata,** *Linn. Sp. Pl.* ed. 1, p. 832; *Lour. Fl. Cochinch.* p. 488; *DC. Prodr.* v. p. 603; *Benth. Fl. Hongk.*

p. 183; *Franchet, Pl. David.* p. 165, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 226; *Debeaux, Fl. Tchef.* p. 80.

Bidens chinensis, *Wall. Cat.* 3189, partim.

Bidens Wallichii, *DC. Prodr.* v. p. 598.

Bidens pilosa, *var.* bipinnata, *Hook. f. Fl. Brit. Ind.* iii. p. 309.

CHIHLI: near Peking (*Bushell*! *Williams*! *Bretschneider*!); FORMOSA: Tamsui (*Oldham*, 258!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

Generally spread in warm countries.

2. **Bidens cernua**, *Linn. Sp. Pl.* ed. 1, p. 832; *DC. Prodr.* v. p. 594; *Hook. f. Fl. Brit. Ind.* iii. p. 309; *Franchet, Pl. David.* p. 165.

CHIHLI: Peking (*Bretschneider*!), Jehol (*David*, 2115!); KIANGSU: Shanghai (*Faber*!). Herb. Kew.

Western Europe to China, and in North America from Hudson's Bay to the Pacific and southward on the eastern side to Virginia.

[*Bidens leucorhiza*, DC. (Prodr. v. p. 605), syn. *Coreopsis leucorhiza*, Lour. (Fl. Cochinch. p. 508), is insufficiently described for recognition.]

3. **Bidens Meyeniana**, *Walp. in Nov. Act. Nat. Cur.* xix. Suppl. 1, p. 271, et *Rep.* vi. p. 168.

KWANGTUNG: Cape Syngmoon (*Meyen* ex *Walpers*).

Said to be next to *B. parviflora*, and it may be referable to this or to *B. bipinnata*.

4. **Bidens parviflora**, *Willd. Enum. Pl. Hort. Berol.* p. 848; *DC. Prodr.* v. p. 602; *Ledeb. Fl. Ross.* ii. p. 518; *Franch. et Savat. Enum. Pl. Jap.* i. p. 233.

CHIHLI: Peking (*Bretschneider*!); SHINGKING: Peiling (*Webster*!), Kaichow to Kiuchow (*Ross*!); HUPEH: Patung district (*A. Henry*!). Mus. Brit.; Herb. Kew.

Dahuria to Japan.

5. **Bidens pilosa**, *Linn. Sp. Pl.* ed. 1, p. 832; *DC. Prodr.* v. p. 597; *Benth. Fl. Hongk.* p. 183; *Debeaux, Fl. Tchef.* p. 79; *Henriq. in Bolet. Soc. Brot.* iii. p. 148; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 225.

Bidens chinensis, *Willd. Sp. Pl.* iii. p. 1719; *Miq. in Journ. de Bot. Néerl.* i. p. 104.

Glossogyne chinensis, *Less. Syn. Comp.* p. 212.

Bidens leucantha, *Willd. Sp. Pl.* iii. p. 1719.

HUPEH and KIANGSI to KWANGTUNG, FORMOSA, and the LUCHU ARCHIPELAGO, common; also in the COREA (*A. Henry*! *Shearer*! *Oldham*! *Wilford*! *Wright*! *Carles*!). Mus. Brit.; Herb. Kew.

Generally spread in the tropics and extending into some temperate regions.

6. **Bidens tripartita**, *Linn. Sp. Pl.* ed. 1, p. 831; *DC. Prodr.* v. p. 594; *Maxim. Prim. Fl. Amur.* p. 152; *Hook. f. Fl. Brit. Ind.* iii. p. 309; *Franchet, Pl. David.* p. 165.

CHIHLI: Jehol (*David* ex *Franchet*); SHINGKING: Chienshan (*Ross*!); HUPEH: Nanto and mountains to the northward (*A. Henry*!). Herb. Kew.

Western Europe and North Africa to Japan.

1. **Glossogyne tenuifolia**, *Cass. in Dict. Sc. Nat.* li. p. 475; *DC. Prodr.* v. p. 632; *Henriq. in Bolet. Soc. Brot.* iii. p. 148; *Benth. Fl. Hongk.* p. 184, et *Fl. Austral.* iii. p. 544.

Bidens tenuifolia, *Labill. Sert. Austr. Caled.* p. 44, t. 45.

CHINA: without locality (*Millett*!); FORMOSA: Tamsui (*Oldham*, 259!), south-west (*Swinhoe*!); PESCADORES (*Swinhoe*!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Wright*!). Mus. Brit.; Herb. Kew.

Philippine Islands, Australia, and New Caledonia.

## 71. COMPOSITÆ: ANTHEMIDEÆ.

1. **Achillea Millefolium**, *Linn. Sp. Pl.* ed. 1, p. 899; *DC. Prodr.* vi. p. 24; *Ledeb. Fl. Ross.* ii. p. 531; *Hook. f. Fl. Brit. Ind.* iii. p. 312.

SZECHUEN: Mount Omei at 2500 feet (*Faber*!). Herb. Kew.

Western Europe, from the Azores, to Mandshuria, and all across North America, and southward to the mountains of Mexico. In India it has not been found eastward of Kumaon.

2. **Achillea ptarmicoides**, *Maxim. Prim. Fl. Amur.* p. 154; *Franch. et Savat. Enum. Pl. Jap.* i. p. 233.

CHIHLI: Pohuashan (*Bullock*!); COREA: Chemulpo (*Carles*!), Port Chusan (*Wilford*!). Herb. Kew.

Mandshuria and Japan.

This is probably the same as *Ptarmica alpina*, Ledeb. (Fl. Ross. ii. p. 528), but not of DC., nor *Achillea alpina*, L., and perhaps a variety of the following species.

3. **Achillea sibirica,** *Ledeb. Ind. Sem. Hort. Dorpat.* 1811; *Franch. et Savat. Enum. Pl. Jap.* i. p. 233.

Ptarmica sibirica, *Ledeb. Fl. Ross.* ii. p. 528.

Achillea mongolica, *Fisch.* ex *Spreng. Nov. Prov. Hort. Hal. et Berol.* 1818, p. 1.

Ptarmica mongolica, *DC. Prodr.* vi. p. 22; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473.

CHIHLI: Peking (ex *Maximowicz*); KIANGSU: Shanghai (*Faber*!); HUPEH: Patung district (*A. Henry*!); COREA: Chemulpo (*Carles*!). Herb. Kew.

Dahuria to Kamtschatka and Japan.

1. **Chrysanthemum coronarium,** *Linn. Sp. Pl.* ed. 1, p. 890; *DC. Prodr.* vi. p. 64; *Franchet, Pl. David.* p. 166; *Hook. f. Fl. Brit. Ind.* iii. p. 314.

A native of the Mediterranean region, cultivated and colonized in India and China. The Hongkong specimen referred to this species by Bentham appears to be *C. segetum.*

2. **Chrysanthemum indicum,** *Linn. Sp. Pl.* ed. 1, p. 889; *Thunb. Fl. Jap.* p. 320; *Sabine in Trans. Hort. Soc. Lond.* iv. p. 326, tt. 12 et 13, et *in Trans. Linn. Soc.* xiv. p. 144; *Lindl. in Bot. Reg.* xv. t. 1287; *Henriq. in Bolet. Soc. Brot.* iii. p. 148; *Bretschn. Early Res.* p. 158.

Pyrethrum indicum, *Cass. in Dict. Sc. Nat.* xliv. p. 149, non *Roxb.* ex *DC. Prodr.* vi. p. 62; *Maxim. in Mél. Biol.* viii. p. 516; *Franchet, Pl. David.* p. 167 (var. lavandulæfolium).

Chrysanthemum tripartitum, *Sweet, Brit. Fl. Gard.* t. 193.

Chrysanthemum procumbens, *Lour. Fl. Cochinch.* p. 499, ex *Maximowicz.*

Matricaria, n. sp., *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473, fide *Maxim.*

CHINA: without locality (*Staunton*! *Fortune*, 38!); CHIHLI: Peking (*Mœllendorff*! *Bushell*! *David*, 2425!); SHINGKING: without locality (*Ross*!), Moukden (*Webster*!); KIANGSU: Shanghai

(*Carles*! *Maingay*!); CHEKIANG: Chapu (*Oldham*!); KIANGSI: Kiukiang (*Shearer*!); FOKIEN: Chefoo (*Forbes*!); HUPEH: Ichang and Patung districts (*A. Henry*, 115, 887, 3081!); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

Japan.

A. P. DeCandolle and other contemporaneous botanists distinguished *Chrysanthemum indicum* from *C. sinense*, and Maximowicz and Franchet likewise recognize two species. We have followed them, though we do not find it easy to determine some of the forms. *C. indicum* is characterized by having thinner, green, not glaucous leaves, more completely scarious involucral bracts and short yellow ray-flowers.

3. **Chrysanthemum oreastrum**, *Hance in Journ. Bot.* 1878, p. 108.

CHIHLI: Siaowutaishan (*Hancock*!). Mus. Brit.; Herb. Kew.

4. **Chrysanthemum Segetum**, *Linn. Sp. Pl.* ed. 1, p. 889; *DC. Prodr.* vi. p. 64.

Cultivated in Hongkong and Szechuen, and collected in Formosa by Oldham without any indication of the origin of the specimens. Chungking specimens collected by Mr. F. S. A. Bourne have more divided leaves than ordinary *C. segetum*, but not the comparatively finely divided leaves of *C. coronarium*. Mr. Bourne gives the Chinese name as T'ung-hao-ts'ai. The range of this plant in a wild state is Europe, North Africa, and South-western Asia.

5. **Chrysanthemum sibiricum**, *Fisch.* ex *Turcz. Fl. Baic.-Dahur.* ii. 2. p. 42.

Leucanthemum sibiricum, *DC. Prodr.* vi. p. 46; *Ledeb. Fl. Ross.* ii. p. 541; *Maxim. Prim. Fl. Amur.* p. 155.

Leucanthemum palmatum, *Lam. Fl. Franc.* ii. p. 138, excl. patria, ex *DC.*

Matricaria monspeliensis, *β*, *Desv. in Lam. Encycl.* iii. p. 733.

Chrysanthemum monspeliense, *Schkuhr, Handb.* iii. p. 131, t. 253.

SHINGKING or NORTH COREA (*James*!); COREA: without locality (*Watters*!). Herb. Kew.

Altai and Dahuria to Mandshuria.

The Corean specimens are very handsome, and belong to the variety described by Maximowicz (Prim. Fl. Amur. p. 156) as *β. latilobum*.

6. **Chrysanthemum sinense**, *Sabine in Trans. Linn. Soc.* xiv. p. 145, et *in Trans. Hort. Soc. Lond.* iv. t. 14.

Pyrethrum sinense, *DC. Prodr.* vi. p. 62; *Maxim. in Mél. Biol.* viii. p. 517; *Franchet, Pl. David.* p. 167; *Steetz in Seem. Bot. Voy. 'Herald,'* p. 391; *Bot. Mag.* tt. 327, 2042; *Bot. Reg.* t. 455 (sub *Chrysanthemo indico* varietatibus).

CHIHLI: near Peking (*Williams*! *Mœllendorff*! *Bretschneider*! *Bushell*!); HUPEH: Patung district (*A. Henry*!); HONGKONG (*Wilford*! *Champion*! *Seemann*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan.

Var.? **vestitum**, *Hemsl.*; foliis crassis integris vel grosse dentatis, subtus densissime appresseque tomentosis albidis, involucri bracteis exterioribus crassis dense albo-tomentosis.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*, 1115, 3102!). Herb. Kew.

Of his number 1115 Dr. Henry writes, "common in winter in the mountains;" and of 3102, "I have only seen this in the neighbourhood of the Dome," a peak 2000 feet high a little south-west of Ichang. He further states that the disk is yellow and the ray white.

This is very distinct in aspect from ordinary *C. sinense*; but a specimen collected in the Luchu Archipelago by Wright and referred to by Bentham (Fl. Hongk. p. 185), and a cultivated specimen from Japan, collected by Maximowicz and labelled (inadvertently, it is presumed) "*Pyrethrum indicum, β. plenum*," connect it with the other forms.

1. **Matricaria inodora**, *Linn. Fl. Suec.* ed. 2, p. 765; *DC. Prodr.* vi. p. 52; *Ledeb. Fl. Ross.* ii. p. 545.

Chamæmelum (Gastrosulum) limosum, *Maxim. Prim. Fl. Amur.* p. 156?

SHINGKING: Peiling (*Webster*!), between Moukden and Tungcheshien (*James*!). Herb. Kew.

Western Europe to Mandshuria.

It is a little doubtful whether the Shingking plant be correctly referred to this species.

1. **Cotula anthemoides**, *Linn. Sp. Pl.* ed. 1, p. 891; *DC. Prodr.* vi. p. 78; *Benth. Fl. Hongk.* p. 185; *Hook. f. Fl. Brit. Ind.* iii. p. 316.

Pleiogyne anthemoides, *C. Koch in Bot. Zeit.* 1843, p. 40.

Pleiogyne cardiosperma, *Edgew. in Trans. Linn. Soc.* xx. p. 71; *Benth. in Hook. Kew Journ. Bot.* iv. p. 235.

Machlis hemisphærica, *DC. Prodr.* vi. p. 140.

SZECHUEN: Hokiang (*Faber*!); KWANGTUNG (*Tate*! *Wenyon*!); HONGKONG (*Champion*! *Wilford*!). Mus. Brit.; Herb. Kew.

North and South Africa and India.

1. **Myriogyne minuta**, *Less. in Linnæa*, vi. p. 219; *DC. Prodr.* vi. p. 139; *Benth. Fl. Hongk.* p. 186; *Henriq. in Bolet. Soc. Brot.* iii. p. 148.

Centipeda orbicularis, *Lour. Fl. Cochinch.* p. 493; *Debeaux, Fl. Tchef.* p. 84; *Franchet, Pl. David.* p. 167, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 226.

Sphæromorphæa Centipeda, *DC. Prodr.* vi. p. 140.

SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); KIANGSI: Kiukiang (*David* ex *Franchet*); FORMOSA: Tamsui (*Watters*!); KWANGTUNG (*Silva* ex *Henriques*); HONGKONG (*Wright*! *Hance*, 1092! *Wilford*!). Mus. Brit.; Herb. Kew.

Mascarene Islands, India, Malaya, and Australasia.

The synonymy of this plant is very perplexing, and the above may not be correct.

1. **Tanacetum sibiricum**, *Linn. Sp. Pl.* ed. 1, p. 844; *DC. Prodr.* iv. p. 129; *Maxim. Prim. Fl. Amur.* p. 162; *Ledeb. Fl. Ross.* ii. p. 603.

Artemisia sibirica, *Maxim. in Mél. Biol.* viii. p. 524; *Franchet, Pl. David.* p. 168.

CHIHLI: Peking (*David*, 487, ex *Franchet*); SHINGKING: Peiling (*Webster*!). Mus. Brit.; Herb. Kew.

Central Russia to Mandshuria.

1. **Crossostephium artemisioides**, *Less. in Linnæa*, vi. p. 220; *DC. Prodr.* vi. p. 127; *Maxim. in Mél. Biol.* viii. p. 520.

Artemisia chinensis, *Linn.*, quoad plantam Chinensem ex synon. Plukenetii, fide *Maxim.*

Absinthium maritimum Sinarum, *Pluk. Phytogr.* t. 35. fig. 5.

Tanacetum chinense, *A. Gray*, ex *Maxim. loc. cit.*

CHIHLI: Peking (*Skatchkoff*!); FOKIEN: Amoy, cult. (*Hance*, 1402!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Philippine Islands, and cultivated in India.

Maximowicz affirms that Gray was right in referring this plant to the genus *Tanacetum*.

1. **Artemisia annua**, *Linn. Sp. Pl.* ed. 1, p. 847; *Lour. Fl. Cochinch.* p. 491; *DC. Prodr.* vi. p. 119; *Benth. Fl. Hongk.* p. 187; *Franchet, Pl. David.* p. 169, et *in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 227; *Debeaux, Fl. Tchef.* p. 83; *Hance in Journ. Linn. Soc.* xiii. p. 82; *Maxim. in Mél. Biol.* viii. p. 528; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 8; *Hook. f. Fl. Brit. Ind.* iii. p. 323.

CHINA: without locality (*Fortune*!); CHIHLI: Peking (*Bretschneider*!); KIANGSU: Shanghai (*Maingay*!); CHEKIANG: Chusan (*Cantor*!); FOKIEN: Amoy (*Hance*, 271!); FORMOSA (*Oldham*, 271!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); KANSUH (ex *Kanitz*); COREA: Chemulpo (*Carles*, 204!). Mus. Brit.; Herb. Kew.

Eastern Europe to North-western India, Siberia, and Mandshuria.

2. **Artemisia anomala**, *S. Moore in Journ. Bot.* 1875, p. 227; *Hemsl. in Journ. Bot.* 1876, p. 208.

KIANGSI: Kiukiang (*Shearer*! *Mœllendorff*!); KWANGTUNG: grassy hills one hundred miles north of Canton (*Sampson*, hb. *Hance*, 11427!), Lofaushan (*Ford*!). Mus. Brit.; Herb. Kew.

3. **Artemisia apiacea**, *Hance in Walp. Ann.* ii. p. 895; *Maxim. in Mél. Biol.* viii. p. 524.

Artemisia Thunbergiana, *Maxim. in Mél. Biol.* viii. p. 528; *Debeaux, Fl. Shangh.* p. 37; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 227.

CHIHLI: Peking (*Bretschneider*!); SHINGKING: Chienshan (*Ross*!); KIANGSU: Shanghai (*Carles*!); CHEKIANG: Chusan (*Cantor*!), Ningpo (*Faber*!); KWANGTUNG: rice-fields near Canton (*Hance*, 10157!). Mus. Brit.; Herb. Kew.

Japan.

[*Artemisia aquatica*, Lour. (Fl. Cochinch. p. 490), has not been identified; but probably it does not belong to this genus.]

4. **Artemisia Besseriana**, *Ledeb. Fl. Ross.* ii. p. 590.

Artemisia chinensis, *Besser in Linnæa,* xv. p. 92.

CHIHLI: Peking (*Bretschneider* ?). Herb. Kew.

Siberia, Mandshuria.

We are a little doubtful respecting this determination. Maximowicz unites (Mél. Biol. viii. p. 531) this with *A. lagocephala*, Fisch., *A. Kruhsiana*, Bess., and *A. lithophila*, Turcz.

5. **Artemisia brachyloba**, *Franch. Pl. David.* p. 171; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 9.

CHIHLI: Peking (*David*, 560, ex *Franchet*); KANSUH (ex *Kanitz*).

6. **Artemisia campestris**, *Linn. Sp. Pl.* ed. 1, p. 846; *DC. Prodr.* vi. p. 96; *Maxim. in Mél. Biol.* viii. p. 524; *Franchet, Pl. David.* p. 168.

CHIHLI: Peking (*Bretschneider*! *David*, 2343, ex *Franchet*); LUCHU ARCHIPELAGO: on rocks and sand of the seashore (*Wright*!). Herb. Kew.

Western Europe to Afghanistan and Mandshuria.

7. **Artemisia capillaris**, *Thunb. Fl. Jap.* p. 309; *DC. Prodr.* vi. p. 126; *Maxim. in Mél. Biol.* viii. p. 524.

Artemisia capillaris, var. arbuscula, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 175, *ex Maxim.*

FORMOSA (*Swinhoe*!); PESCADORES (*Swinhoe*!); KWANGTUNG: Pakhoi (*Playfair*!). Mus. Brit.; Herb. Kew.

Mandshuria to Kamtschatka and Japan.

Maximowicz does not cite any Chinese habitats for this species. On the other hand, some of the specimens we have referred to *A. scoparia* may belong here. Debeaux (Fl. Tchef. p. 83) refers specimens from Chefoo and elsewhere in Shantung to this species.

8. **Artemisia eriopoda**, *Bunge, Enum. Pl. Chin.* p. 37; *DC. Prodr.* vi. p. 96; *Maxim. in Mél. Biol.* viii. p. 526; *Franchet, Pl. David.* p. 168, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 526.

CHIHLI: Peking (*Bushell*! *Bretschneider*!), Jehol (*David*!); SHINGKING: Talienhwan (*Birnie*!); SHANTUNG: Chefoo (*Fauvel* ex *Franchet*). Mus. Brit.; Herb. Kew.

Maximowicz remarks that this is scarcely distinguishable from *A. japonica* except in the shape of the leaves and the looser panicles; and either the labels of the Abbé David's specimens of the two species in the Kew Herbarium have been transposed, which is very probable, or Franchet confused them.

9. **Artemisia frigida,** *Willd. Sp. Pl.* iii. p. 1838; *DC. Prodr.* vi. p. 124; *Ledeb. Fl. Ross.* ii. p. 597; *Franchet, Pl. David.* p. 171.

CHIHLI: Peking (*David* ex *Franchet*).

Siberia and Mandshuria.

10. **Artemisia glauca,** *Pall. in Willd. Sp. Pl.* iii. p. 1831; *DC. Prodr.* vi. p. 97; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473, et *in Mél. Biol.* viii. p. 524.

CHIHLI: Peking (ex *Maximowicz*).

Siberia and Mongolia, and North-west India.

11. **Artemisia japonica,** *Thunb. Fl. Jap.* p. 310; *DC. Prodr.* vi. p. 100; *Benth. Fl. Hongk.* p. 186; *Franchet, Pl. David.* p. 168; *Maxim. in Mél. Biol.* viii. p. 526 (*varietates* japonica *et* desertorum).

Artemisia japonica, *Thunb.*, var. rotundifolia, *Debeaux, Fl. Tchef.* p. 81?

Artemisia parviflora, *Buch.* ex *Roxb. Fl. Ind.* iii. p. 420, ex *Maxim.*; *Hook. f. Fl. Brit. Ind.* iii. p. 322.

Artemisia glabrata, *DC. in Wight's Contrib. Ind. Bot.* p. 20.

Artemisia cuneifolia, *DC. Prodr.* vi. p. 126.

Artemisia Desertorum, *Spreng. Syst. Veg.* iii. p. 490, ex *Maxim.*

CHIHLI: Peking (*Bushell*!), Jehol (*David*!); SHINGKING: Chienshan (*Ross*!), Talienhwan (*Swinhoe*!); SHANTUNG: Chefoo and elsewhere (*Perry*! *Carmichael*! *Maingay*!); CHEKIANG: Ningpo mountains (*Faber*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang, Patung, and neighbourhood (*A. Henry*, 280, 354, 1042, 3286!); SZECHUEN: Mount Omei at 5000 feet (*Faber*!); KWANGTUNG (*Hance*, 7435!); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

North India, from Kashmir to Khasia, Pulney mountains in the Madras Peninsula, and in Japan.

Sir Joseph Hooker (Fl. Brit. Ind. iii. p. 322) retains *A. Desertorum* and *A. parviflora* as distinct species without any reference to *A. japonica*, and the Indian *A. Desertorum* is apparently quite distinct from the Siberian plant, having much larger flower-heads; but *A. parviflora*, Roxb., is not separable from the Chinese and Japanese species.

[*Artemisia judaica*, Lour. (Fl. Cochinch. p. 489), is not the

plant of Linnæus; but it is impossible to determine the species from the description.]

12. **Artemisia Keiskeana,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 176; *Maxim. in Mél. Biol.* viii. p. 534.

Artemisia vulgaris, β. stolonifera, lusus *b.* glabrescens, *Regel, Fl. Ussur.* p. 95.

COREA: Chemulpo (*Carles*!). Herb. Kew.

Eastern Mandshuria and Japan.

13. **Artemisia laciniata,** *Willd. Sp. Pl.* iii. p. 1843; *DC. Prodr.* vi. p. 110; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473, et *in Mél. Biol.* viii. p. 530 (*varietates* laciniata, macrobotrys, *et* latifolia); *Hook. f. Fl. Brit. Ind.* iii. p. 326.

CHIHLI: Peking (*Bushell*!). Herb. Kew.

North-western India, Siberia, and Mandshnria.

14. **Artemisia lactiflora,** *Wall. ex DC. Prodr.* vi. p. 115; *Maxim. in Mél. Biol.* viii. p. 535.

CHINA: without locality (*Staunton*!); HUPEH: Ichang, Patung, and Nauto (*A. Henry*, 151, 152, 2441, 3028, 4465!); KWANGTUNG (*Hance*, 5275! *Sampson*, 1746! *Wenyon*!). Mus. Brit.; Herb. Kew.

15. **Artemisia latifolia,** *Ledeb. in Mém. Acad. Pétersb.* v. p. 569, et *Fl. Ross.* ii. p. 582.

KIANGSU: Shanghai (*Maingay*?). Herb. Kew.

Siberia.

16. **Artemisia Moxa,** *DC. Prodr.* vi. p. 121; *Maxim. in Mél. Biol.* viii. p. 539.

CHIHLI: Peking (*Skatschkoff* ex *Maximowicz*).

17. **Artemisia Sacrorum,** *Ledeb. in Mém. Acad. Pétersb.* v. p. 571, *Fl. Alt.* iv. p. 72, et *Fl. Ross.* ii. p. 578; *Maxim. in Mél. Biol.* viii. p. 529 (varietates); *Hook. f. Fl. Brit. Ind.* iii. p. 326; *Hance in Journ. Bot.* 1875, p. 133; *Franchet, Pl. David.* p. 170, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 227; *Debeaux, Fl. Tchef.* p. 81.

Artemisia macrantha, *Ledeb. in Mém. Acad. Pétersb.* v. p. 573, et *Fl. Ross.* ii. p. 581.

Artemisia Messerschmidiana, *Besser, Monogr. Abrot.* p. 27; *DC. Prodr.* vi. p. 107.

Chihli: Peking (*Bretschneider* !, Jehol (*David*), 2205 !); Shantung: Chefoo (*Perry* !); Hupeh: Ichang and immediate neighbourhood (*A. Henry* !). Mus. Brit.; Herb. Kew.

Eastern Europe (Russia) to North-west India and Mandshuria.

18. **Artemisia scoparia,** *Waldst. et Kit. Pl. Rar. Hung.* i. p. 66, t. 65; *DC. Prodr.* vi. p. 99; *Maxim. in Mél. Biol.* viii. p. 523; *Franchet, Pl. David.* p. 167; *Hook. f. Fl. Brit. Ind.* iii. p. 323; *Henriq. in Bolet. Soc. Brot.* iii. p. 148.

Artemisia capillaris, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 175, excl. var. β, nec *Thunb.* ex *Maxim.*

China: without locality (*Fortune*, 14 !); Chihli: Jehol (*David*, 2135 !); Shantung (*Maingay* !); Formosa: Tamsui (*Oldham*, 270 !); Hupeh: Ichang and Patung districts (*A. Henry* !); Kwangtung (*Hance*, 271 !), upper North river (*Ford* !); Corea: north-east coast (*Perry* !). Mus. Brit.; Herb. Kew.

Central Europe to North India, Kamtschatka and Japan.

Imperfect specimens of this are difficult to distinguish from *A. capillaris.*

19. **Artemisia Sieversiana,** *Willd. Sp. Pl.* iii. p. 1845, excl. syn.; *DC. Prodr.* vi. p. 126; *Maxim. in Mél. Biol.* viii. p. 537; *Franchet, Pl. David.* p. 172; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 8; *Hook. f. Fl. Brit. Ind.* iii. p. 329.

Chihli: Peking (*Bretschneider* ! *David*, 2039 !). Herb. Kew.

Southern Russia to North-west India and Mandshuria.

Maximowicz refers Fortune's number 14 to this species; but the Kew and British Museum specimens under this number are *A. scoparia.*

20. **Artemisia vestita,** *Wall. in DC. Prodr.* vi. p. 106; *Hook. f. Fl. Brit. Ind.* iii. p. 326; *S. Moore in Journ. Bot.* 1875, p. 231; *Hance in Journ. Bot.* 1878, p. 109, et 1879, p. 12.

Chihli: Peking (*Mœllendorff* !); Shantung (*Maingay* !); Kiangsi: Kiukiang (*Shearer* !); Kwangtung: Lienchau river (*Nevin*, hb. *Hance* !). Mus. Brit.; Herb. Kew.

Western Himalaya and the Salt Range.

The Chinese specimens referred here, and perhaps some of the Indian ones, are scarcely different from some of the varieties of *A. sacrorum.*

21. **Artemisia vulgaris**, *Linn. Sp. Pl.* ed. 1, p. 848; *Lour. Fl. Cochinch.* p. 491; *DC. Prodr.* vi. p. 112; *Ledeb. Fl. Ross.* ii. p. 585; *Benth. Fl. Hongk.* p. 187; *Maxim. in Mél. Biol.* viii. p. 535; *Hook. f. Fl. Brit. Ind.* iii. p. 325; *Debeaux, Fl. Tients.* p. 25, et *Fl. Tchef.* p. 82; *Franchet, Pl. David.* p. 169, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 227 (varietates numerosæ); *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 8; *Henriq. in Bolet. Soc. Brot.* iii. p. 148.

Artemisia integrifolia, *Linn. Sp. Pl.* ed. 1, p. 848.

Artemisia indica, *Willd. Sp. Pl.* iii. p. 1846; *DC. Prodr.* vi. p. 114.

Artemisia igniaria, *Maxim. Prim. Fl. Amur.* p. 161, in adnot.

Artemisia lavandulæfolia, *DC. Prodr.* vi. p. 119.

CHIHLI and COREA to KWANGTUNG, FORMOSA, and LUCHU ARCHIPELAGO: common, and exhibiting nearly as much variation as in the whole area of the species. Mus. Brit.; Herb. Kew.

Western Europe to Kamtschatka, Japan, and the Malay archipelago.

Very extreme forms of the varieties *lavandulæfolia* and *integrifolia* were collected in Hupeh by Dr. A. Henry.

22. **Artemisia**, sp. nov.? ex affinitate *A. lactifloræ*, differt foliorum segmentis ultimis longe acuteque acuminatis, floribus luteis, etc.

HUPEH: Patung district (*A. Henry*, 4677!). Herb. Kew.

There are specimens in the Kew Herbarium of three or four apparently different species of *Artemisia*; but the material is hardly sufficient in so difficult a genus.

## 71. COMPOSITÆ: SENECIONIDEÆ.

1. **Petasites japonicus**, *Miq. Prol. Fl. Jap.* p. 380, ex *Franch. et Savat. Enum. Pl. Jap.* i. p. 220.

Petasites spurius, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 168, non *Reichb.*

Tussilago Petasites, *Thunb. Fl. Jap.* p. 314, non *Linn.*

HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); COREA: mountains south of Soul (*Carles*!). Herb. Kew.

Japan.

The Hupeh specimens differ in having fewer and smaller bracts on the scape.

[Loureiro records (Fl. Cochinch. p. 502) *Tussilago Farfara*, Linn., from North China; but we have seen no specimens, and Bretschneider (Early Res. p. 159) states that the Chinese name given by Loureiro is applied in Japan to *Petasites japonicus*.]

2. **Petasites tricholobus**, *Franchet, Pl. David.* p. 173.

SHENSI: Tsungling range (*David* ex *Franchet*).

1. **Cremanthodium discoideum**, *Maxim. in Mél. Biol.* xi. p. 238.

KANSUH: alpine meadows in the region of Tangut (*Przewalski* ex *Maximowicz*).

2. **Cremanthodium humile**, *Maxim. in Mél. Biol.* xi. p. 236.

KANSUH: frequent in stony places at 10,000 to 12,000 feet (*Przewalski* ex *Maximowicz*).

3. **Cremanthodium lineare**, *Maxim. in Mél. Biol.* xi. p. 238.

KANSUH: mountain meadows in the Tangut region (*Przewalski* ex *Maximowicz*).

4. **Cremanthodium plantagineum**, *Maxim. in Mél. Biol.* xi. p. 237.

KANSUH: in the same locality as *C. humile* (*Przewalski* ex *Maximowicz*).

1. **Doronicum stenoglossum**, *Maxim. in Mél. Biol.* xi. p. 238.

KANSUH (*Przewalski* ex *Maximowicz*).

1. **Gynura divaricata**, *DC. Prodr.* vi. p. 301.

Senecio divaricatus, *Linn. Sp. Pl.* ed. 1, p. 866; *Lour. Fl. Cochinch.* p. 502.

KWANGTUNG: near Canton (*Bladh*! *Staunton*! *Nelson*!). Mus. Brit.

2. **Gynura bicolor**, *DC. Prodr.* vi. p. 299; *Hook. f. Fl. Brit. Ind.* iii. p. 335.

Cacalia bicolor, *Roxb. Fl. Ind.* iii. p. 412; *Willd. Sp. Pl.* iii. p. 1731; *Salisb. Parad. Lond.* t. 25 (26 in tab.); *Bot. Reg.* t. 110.

Gynura angulosa, *Hance in Journ. Bot.* 1883, p. 322, vix *DC.*

FORMOSA (*Oldham*, 261! *Watters*! *Ford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Malacca.

The Formosa and Luchu specimens agree exactly with the figures cited, but the Malacca plant may be different. Cultivated specimens of *Gynura ovalis*, DC., often bear this name.

3. **Gynura ovalis**, *DC. Prodr.* vi. p. 300.

Cacalia ovalis, *Ker, Bot. Reg.* t. 101.

Gynura auriculata, *DC. Prodr.* vi. p. 300, fide *Benth.*

Gynura Pseudochina, *Benth. Fl. Hongk.* p. 189, vix *DC.* vide *Hook. f. Fl. Brit. Ind.* iii. p. 335; *Henriq. in Bolet. Soc. Brot.* iii. p. 148.

Gynura bulbosa, *Hook. et Arn. Bot. Beech. Voy.* p. 194; *DC. Prodr.* vi. p. 301.

Cacalia bulbosa, *Lour. Fl. Cochinch.* p. 485.

Porophyllum hieracioides, *DC. Prodr.* v. p. 650, ex *Benth.*

FORMOSA (*Swinhoe*!); KWANGTUNG: Pakhoi (*Playfair*!), without locality (*Meyen*! *Tate*! *Maingay*!); HONGKONG (*Champion*! *Wilford*!); HAINAN (*Swinhoe*!). Mus. Brit.; Herb. Kew.

Var. **pinnatifida**, *Hemsl.*

KWANGTUNG: Pakhoi (*Playfair*!). Herb. Kew.

As Sir Joseph Hooker points out (Fl. Brit. Ind. iii. p. 335), the venation of the leaves of this species is very marked, and it is quite distinct from the one he refers to *G. Pseudochina*. What name it should bear can only be determined by a thorough revision of the genus. The same species was formerly cultivated at Calcutta and in Mauritius, where it was confused with the very different *G. bicolor*.

4. **Gynura pinnatifida**, *DC. Prodr.* vi. p. 301; *Franch. et Savat. Enum. Pl. Jap.* i. p. 245.

Cacalia pinnatifida, *Lour. Fl. Cochinch.* p. 486.

CHINA: without locality (*Fortune*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); KWANGTUNG: Fatshan (*Wenyon*!). Mus. Brit.; Herb. Kew.

Japan.

[*Cacalia procumbens*, Lour. (Fl. Cochinch. p. 485), is doubtingly referred to *Gynura sarmentosa*, DC. (Prodr. vi. p. 298), a plant which inhabits the Malay peninsula and archipelago eastward to the Philippines, but we have seen no Chinese specimens.]

1. **Emilia flammea,** *Cass. in Dict. Sc. Nat.* xiv. p. 406, et *Phyt.* p. 1, t. 5; *Hook. f. Fl. Brit. Ind.* iii. p. 336.

Emilia sagittata, *DC. Prodr.* vi. p. 302.

Cacalia sagittata, *Wahl, Symb.* iii. p. 91.

Cacalia coccinea, *Sims in Bot. Mag.* t. 564.

CHIHLI: Peking (*Bretschneider!*). Herb. Kew.

Commonly cultivated on account of its ornamental character and uncertain where it is indigenous, though DeCandolle records it as a native of India and the Philippine Islands. Most likely cultivated at Peking.

[*Emilia prenanthoidea,* DC. (Prodr. vi. p. 303), syn. *E. angustifolia,* DC., we have recorded from China, collected by Fortune, in our memoranda, but the specimen was not found at the time of writing this.]

2. **Emilia sonchifolia,** *DC. in Wight, Contrib. Ind. Bot.* p. 24, et *Prodr.* vi. p. 302; *Hook. f. Fl. Brit. Ind.* iii. p. 336.

Senecio sonchifolius, *Moench; Benth. Fl. Hongk.* p. 189; *Henriq. in Bolet. Soc. Brot.* iii. p. 148.

Emilia sinica, *Miq. in Journ. de Bot. Néerl.* i. p. 105.

FORMOSA: Tamsui (*Oldham!*); HUPEH: Ichang and immediate neighbourhood (*A. Henry!*); KWANGTUNG: Swatow (*Perry!*), Pakhoi (*Playfair!*); HONGKONG (*Wright! Urquhart! Hinds! Wilford!*); LUCHU ARCHIPELAGO (*Wright!*). Mus. Brit.; Herb. Kew.

Widely spread in the warmer parts of Asia and Africa, and colonized in America.

1. **Senecio aconitifolius,** *Turcz. Enum. Pl. Chin. Bor. coll. Kirilow, in Bull. Soc. Nat. Mosc.* 1837, n. 7, p. 155; *Franchet, Pl. David.* p. 176; *Hance in Journ. Bot.* 1882, p. 6.

Cacalia aconitifolia, *Bunge, Ennm. Pl. Chin. Bor.* p. 37; *DC. Prodr.* vi. p. 329.

Senecio Turczaninowii, *Walp. Rep.* ii. p. 654, ex *Maxim.* sed nomen in *loc. cit.* non est.

Syneilesis aconitifolia, *Maxim. in Prim. Fl. Amur.* pp. 165 et 473, t. 8. figg. 9–18, et *in Mél. Biol.* ix. p. 299.

CHIHLI: near Peking (*Bunge! Bretschneider! Bushell!*), Jehol (*David,* 2016!); SHINGKING: near Moukden (*Webster!*); KIANGSU: Chinkiang (*Bullock,* hb. *Hance!*); COREA: Port

Chusan (*Wilford* !); COREAN ARCHIPELAGO: Herschel Island and Long Reach (*Oldham*, 432 ? 433 !). Mus. Brit.; Herb. Kew.

Mandshuria.

Oldham's 432, which number is referred by Maximowicz to *S. Syneilesis*, differs from typical *S. aconitifolius* in the more thyrsoid not corymbose arrangement of the larger flower-heads, yet it is probably the same species.

2. **Senecio altaicus**, *Schultz-Bip. in Flora*, 1845, p. 50; *Maxim. in Mél. Biol.* xi. p. 242.

Ligularia altaica, *DC. Prodr.* vi. p. 315; *Ledeb. Fl. Ross.* ii. p. 621 (excl. pl. Gmelini et patria omni præter Altai, fide *Maxim.*).

KANSUH (*Przewalski* ex *Maximowicz*).

Altai.

3. **Senecio ambraceus**, *Turcz. Fl. Baic.-Dahur.* ii. 2. p. 89; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 228.

Senecio argunensis, *Debeaux, Fl. Tchef.* p. 85, non *Turcz.* ex *Franchet.*

CHIHLI: near Peking (*David*, 2418 !); SHANTUNG: Chefoo (*Forbes* !). Mus. Brit.; Herb. Kew.

Dahuria.

4. **Senecio argunensis**, *Turcz. Fl. Baic.-Dahur.* ii. 2. p. 91; *Maxim. in Mél. Biol.* viii. p. 15; *Hance in Journ. Bot.* 1880, p. 262.

Senecio Jacobæa, β. grandiflorus, *Turcz.* ex *DC. Prodr.* vi. p. 350.

CHIHLI: near Peking (*Bretschneider* ! *Bushell* !), Jehol (*David*, 2120 !); SHINGKING: Peiling and elsewhere (*Webster* ! *Ross* !); SHANGTUNG (*Maingay* !); HUPEH: Ichang (*A. Henry*, 562 ?); COREA: Chemulpo (*Carles* !). Mus. Brit.; Herb. Kew.

Mandshuria.

The limits of this and *S. ambraceus* are not clearly defined and we have seen no authenticated specimens. The plant from Hupeh may be referable to *S. Jacobæa*.

5. **Senecio bulbiferus**, *Maxim. in Mél. Biol.* ix. p. 295; *Franch. et Savat. Enum. Pl. Jap.* i. p. 251.

HUPEH: Patung district (*A. Henry*, 2541 !). Herb. Kew.

Japan.

6. **Senecio campestris**, *DC. Prodr.* vi. p. 361; *Maxim. in Mél. Biol.* viii. p. 15; *Ledeb. Fl. Ross.* ii. p. 646; *Franchet, Pl. David.*

p. 174, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 228; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 383.

Cineraria campestris, *Retz. Observ.* i. p. 30.

Senecio pratensis, *DC.*, S. glabellus, *DC.*, S. aurantiacus, *DC.*, S. Kirilowii, *Turcz.*, *et* S. subensiformis, *DC. Prodr.* vi. pp. 360–363, ex *Maxim.*

Senecio Pierotii, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 182.

Senecio spathulæfolius, *Turcz. Enum. Pl. Chin. Bor. coll. Kirilow, in Bull. Soc. Nat. Mosc.* 1837, no. 7, p. 154, non *DC.*

Cineraria subdentata, *Bunge, Enum. Pl. Chin. Bor.* p. 39.

CHIHLI: near Peking (*Bretschneider*! *Bushell*! *Hancock*!); SHINGKING: various localities (*Ross*!); KIANGSU: Shanghai (*Carles*!); CHEKIANG: Ningpo (*Cooper*!); KIANGSI: Kiukiang and Chinkiang (*Maries*!); HUPEH: Ichang (*A. Henry*!); SZECHUEN (*Faber*!); COREA: west coast (*Perry*!). Mus. Brit.; Herb. Kew.

Western Europe through Siberia to Japan, but not known from North India.

7. **Senecio Clivorum**, *Maxim. in Mél. Biol.* viii. p. 14; *Franch. et Savat. Enum. Pl. Jap.* i. p. 247.

Ligularia Clivorum, *Maxim. in Mél. Biol.* vii. p. 555.

HUPEH: Patung district (*A. Henry*, 524, 2451, 5207!); SZECHUEN: Mount Omei, at 3000 feet (*Faber*!). Herb. Kew.

Japan.

8. **Senecio dahuricus**, *Schultz-Bip. in Flora*, 1845, p. 499; *Maxim. in Mél. Biol.* xi. p. 296; *Franch. et Savat. Enum. Pl. Jap.* i. p. 250.

Cacalia auriculata, *DC. Prodr.* vi. p. 329; *Maxim. Prim. Fl. Amur.* p. 165.

HUPEH: Patung district (*A. Henry*, 2437?). Herb. Kew.

Dahuria to Kamtschatka and Japan.

9. **Senecio deltophyllus**, *Maxim. in Mél. Biol.* xi. p. 245; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 11.

KANSUH: alpine woods in the west (*Przewalski* ex *Maximowicz*).

10. **Senecio Exul**, *Hance in Journ. Bot.* 1868, p. 174; *Maxim. in Mél. Biol.* viii. p. 14.

HUPEH: Ichang (*A. Henry*, 1314!); SZECHUEN: above

Chungking (*Faber*!); KWANGTUNG: east river (*Sampson*, hb. *Hance*, 13827!). Mus. Brit.; Herb. Kew.

As Hance remarks, this is exceedingly near *Senecio ægyptius*, Linn., and we only forbear uniting it with that because we have seen no ripe achenes. It may have been introduced into China, as it is not known from the country between Arabia and China.

11. **Senecio (§ Eusenecio) Faberi,** *Hemsl.*, n. sp.

*Herba* glabrescens, facie *Sonchi oleracei*, caule crasso, ut videtur subsucculento, cavo striato primum plus minusve araneoso-tomentoso. *Folia* (caulina tantum visa) sessilia, amplexicaulia, submembranacea, glabra, ovato-lanceolata, basi late rotundato-auriculata, usque pedalia et fere 6 poll. lata, infra medium paucidentata, simul grosse dentata, dentibus callosis, sursum attenuata, sed obtusiuscula, venis subtus elevatis. *Capitula* radiata, pauciflora, numerosissima, densissime composito-corymbosa, bracteolata; involucri bracteæ glabræ, sæpissime 8, contiguæ, apice obtusæ, coloratæ. *Flores radii* sæpissime 4, ligulis brevibus alte 3-dentatis. *Flores disci* sæpissime 8, involucrum vix superantes; corolla infundibularis, lobis subobtusis extus papillosis; antheræ ecaudatæ. *Achænia* (matura non visa) omnia papposa, glabra, striata.

SZECHUEN: Mount Omei, 4000 to 9000 feet (*Faber*!). Herb. Kew.

A very distinct species with ample, sessile, broadly auricled leaves, and very numerous flower-heads in dense, almost sessile, terminal, compound corymbs.

12. **Senecio farfaræfolius,** *Maxim. in Mél. Biol.* ix. p. 293; *Franch. et Savat. Enum. Pl. Jap.* i. p. 250 (varietates).

SHINGKING (*Ross*?). Herb. Kew.

A common and variable Japanese species to which we refer the above specimen with some hesitation.

13. **Senecio (§ Synotis) Henryi,** *Hemsl.*, n. sp.

*Herba* perennis? glabrescens, 2–3-pedalis, caulibus teretibus striatis, supra medium (inflorescentia) tantum ramosis. *Folia* (radicalia desunt) petiolata, vix coriacea, discoloria, ovato-oblonga, absque petiolo 4–6 poll. longa, alte pinnatifida, pinnis paucidentatis, vel subbipinnatifida, lobis dentibusque acutissimis, basi subcuneata truncata vel subcordata; petiolus lamina brevior,

basi expansus semiamplexicaulis. *Capitula* sæpissime 3–4-flora, numerosissima, dense racemoso-paniculata, cito glabrescentia; panicula ampla, pyramidalis; involucri bracteæ 3–4, glabræ, oblongæ, semipollicares, obtusæ, contiguæ. *Flores* 3–4, omnes tubulosi vel 1–3 ligulati; antheræ caudatæ. *Achænia* brevia, glaberrima; pappus albus, copiosissimus, corollam fere æquans.

HUPEH: Patung district, in ditches on the cliffs (*A. Henry*, 180, 2454!); SZECHUEN: Mount Omei, 4000 feet (*Faber*!). Herb. Kew.

Near *Senecio Przewalskii*, Maxim., but that has palmately lobed leaves and simply racemose flower-heads.

14. **Senecio (§ Ligularia) Jamesii**, *Hemsl.*, n. sp.

*Herba* scaposa? folia et capitula sejuncta tantum adsunt. *Folia* longe petiolata, subcoriacea, glabrescentia, subæqualiter triangulari-sagittata, 5–6 poll. diametro, obtusiuscule alteque crenato-dentata, segmentis lateralibus bilobatis, omnibus integris vix acutis; petiolus teres, graciliusculus, imperfectus ad 6 poll. longus. *Capitula* longe pedunculata, 3–4 poll. diametro, pedunculis imperfectis 5–7 poll. longis, bracteis angustis 1–1½ poll. longis instructis, parce araneoso-tomentosis; involucri bracteæ ebracteolatæ, latæ, parce araneoso-tomentosæ. *Flores* radii numerosi, ligulis brevissime 3-dentatis. *Flores* disci involucrum vix excedentes. *Achænia* (matura non visa) elongata, glaberrima, profunde striata vel acute sulcata; pappus copiosissimus, corollam æquans, ferrugineus.

NORTH-EASTERN CHINA: Changpeishan, 1000 to 7500 feet (*James*!). Herb. Kew.

This is so very distinct in foliage that we have ventured to describe it from detached leaves and flower-heads.

15. **Senecio japonicus**, *Schultz-Bip. in Flora*, 1845, p. 50; *Maxim. in Mél. Biol.* viii. p. 14; *Hance in Journ. Bot.* 1882, p. 290; *Franch. et Savat. Enum. Pl. Jap.* i. p. 248.

Ligularia japonica, *Less. Syn. Comp.* p. 390; *DC. Prodr.* vi. p. 316.

Erythrochæte palmatifida, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* n. 656.

Arnica japonica, *Thunb. Fl. Jap.* p. 319.

Senecio macranthus, *Clarke, Comp. Ind.* p. 205; *Hook. f. Fl. Brit. Ind.* iii. p. 349.

HUPEH: Ichang and immediate neighbourhood, only seen in one spot, on a moist bank in the Pingshanpa glen, off the Ichang

gorge (*A. Henry*, 3971, 4390!); FOKIEN: Amoy interior (*Swinhoe*!); KWANGTUNG: Lofaushan (*Ford*, 146!). Mus. Brit.; Herb. Kew.

Khasia mountains in Eastern India, and in Japan.

Dr. Henry's 4390 has ligules three inches long and flower-heads more than six inches across. The Indian plant appears to be identical.

16. **Senecio Kæmpferi**, *DC. Prodr.* vi. p. 363; *Maxim. in Mél. Biol.* viii. p. 14; *Franch. et Savat. Enum. Pl. Jap.* i. p. 247.

Tussilago japonica, *Linn. Mant.* p. 113.

Farfugium Kæmpferi, *Benth. Fl. Hongk.* p. 191.

Ligularia Kæmpferi, *Sieb. et Zucc. Fl. Jap.* i. p. 77, t. 35; *Bot. Mag.* t. 5302 (var. aureo-maculata).

Farfugium grande, *Lindl. in Gard. Chron.* 1857, p. 4, et 1860, p. 170.

Senecio Farfugium, *C. Koch, Wochenschrift für Gärtnerei*, 1858, i. p. 209.

Ligularia gigantea, *Sieb. et Zucc. Fl. Jap.* i. p. 79, t. 36.

FORMOSA: Tamsui (*Oldham*, 262!)); HONGKONG (*Wilford*); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Japan; Mandshuria.

17. **Senecio Ligularia**, *Hook. f. Fl. Brit. Ind.* iii. p. 349.

Ligularia sibirica, *Cass. in Dict. Sc. Nat.* xxvi. p. 401; *DC. Prodr.* vi. p. 315; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473.

Cineraria sibirica, *Linn. Sp. Pl.* ed. 2, p. 1242; *Waldst. et Kit. Pl. Rar. Hung.* i. t. 16.

Senecio sibiricus, *Clarke, Comp. Ind.* p. 206, non *Linn. f.*, nec *Lepechin*, nec *Ledeb. Fl. Ross.*

Hoppea sibirica, *Reichb. Fl. Excurs.* ii. p. 240.

Senecio cacaliæfolius, *Schultz-Bip. in Flora*, 1845, p. 50; *Maxim. in Mél. Biol.* viii. p. 14.

Senecio cacaliæformis, *Reichb. Fl. Germ.* xvi. p. 43, t. 977. figg. 1–9; *Franch. et Savat. Enum. Pl. Jap.* i. p. 247.

Cineraria cacaliformis, *Lam. Fl. Franç.* ii. p. 124, ex *DC. Prodr.* vi. p. 315.

Senecio racemosus, *Wall. Cat.* n. 3140, non *Desf.*

Senecio emodensis, *Schultz-Bip. in Flora*, 1845, p. 50.

Ligularia racemosa, *DC. Prodr.* vi. p. 314.

Cineraria speciosa, *Schrad.*; *Link, Enum.* ii. p. 334; *Bot. Reg.* t. 812.

Hoppea speciosa, *Reichb. Hort. Bot.* t. 10.

Ligularia sibirica, *Cass.*, δ. speciosa, *DC. Prodr.* vi. p. 315.

Ligularia euodon, *Miq.* ex *Maxim. in Mél. Biol.* viii. p. 14.

NORTH CHINA: without locality (*Reliq. Fischer*!); HUPEH: Patung (*A. Henry*, 4889!), the variety *speciosa*. Herb. Kew.

Europe, through Central Asia and the mountains of Northern India to Japan.

This species, as here limited, has received several names under *Senecio*, therefore it may be justifiable to adopt the one applied to the aggregate of forms, though the last published, rather than one of those applied to a segregate form. Schultz's name *cacaliæfolius*, the earliest under the genus, is probably a slip of the pen for *cacaliæformis*.

Var. ? **polycephalus**, *Hemsl.*; capitulis minoribus numerosissimis, aliis (paucis) secus scapum solitariis, aliis (plurimis) 2–5 corymbosim aggregatis, radii floribus brevissimis.

HUPEH: Patung district (*A. Henry*, 111, 2457!). Herb. Kew.

The inflorescence of this is so very different, both from the ordinary Siberian form and the more robust variety *speciosa*, that it would not be regarded as probably of the same species in the absence of a connecting-link. This exists, however, in a specimen in the Kew Herbarium from Mandshuria, lately collected by Mr. H. E. M. James. In this some of the lower heads are in corymbose clusters while the remainder are scattered singly on the scape.

*Senecio stenocephalus*, Maxim., a Japanese and North Chinese plant, is perhaps not tenable as a species distinct from *S. Ligularia*.

18. **Senecio mongolicus**, *Schultz-Bip. in Flora*, 1845, p. 50; *Maxim. in Mél. Biol.* xi. p. 242, et *in Bull. Soc. Nat. Mosc.* 1879, p. 28.

Ligularia mongolica, *DC. Prodr.* vi. p. 315.

CHIHLI: Siaowutaishan (*Hancock* ex *Maximowicz*).

Mongolia.

19. **Senecio nemorensis**, *Linn. Sp. Pl.* ed. 1, p. 870; *Ledeb. Fl. Ross.* ii. p. 641; *Maxim. in Mél. Biol.* viii. p. 15; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 9; *Franchet, Pl. David.* p. 174 (varietates).

CHIHLI: near Peking (*David*, 2094, ex *Franchet*), Siaowutaishan (*Hancock* ex *Maximowicz*); HUPEH: Patung district (*A. Henry*, 2430, 2559, 4849, 5011!); KANSUH (ex *Kanitz*). Herb. Kew.

Central and Northern Europe to Japan and Kamtschatka.

20. **Senecio Oldhamianus**, *Maxim. in Mél. Biol.* viii. pp. 11 et 14; *S. Moore in Journ. Bot.* 1878, p. 138; *Hance in Journ Bot.* 1882, p. 290; *Franchet, Pl. David.* p. 175.

Senecio Savatieri, *Franchet, Pl. David.* p. 175, t. 15.

CHEKIANG: Ningpo (*Oldham*, 58, 62! *Everard*!); HUPEH: Ichang, Patung and neighbourhood (*A. Henry*!); SZECHUEN: Chungking, and Mount Omei, 4000 feet (*Faber*!). Mus. Brit.; Herb. Kew.

From the copious specimens in the Kew Herbarium there can be no doubt of the identity of *S. Savatieri* and *S. Oldhamianus*.

21. **Senecio palmatus,** *Pall. It.* iii. p. 321, ex *Ledeb. Fl. Ross.* ii. p. 636.

Senecio cannabifolius, *Less. in DC. Prodr.* vi. p. 349; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 636.

SHANTUNG: Chefoo (*Fauvel* ex *Franchet*).

Siberia, Mandshuria, and Japan.

22. **Senecio phalacrocarpus,** *Hance in Journ. Bot.* 1881, p. 151.

HUPEH: Patung (*A. Henry*, 1402, 1406!); KWANGTUNG: Lienchau river (*Faber*, hb. *Hance*, 20924!), North river (*Ford*, 5!). Mus. Brit.; Herb. Kew.

In this species the pappus seems to be invariably wanting.

23. **Senecio Przewalskii,** *Maxim.* (ubi?); *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 9.

KANSUH (ex *Kanitz*).

Mongolia.

24. **Senecio Roborowskii,** *Maxim. in Mél. Biol.* xi. p. 245.

KANSUH: alpine region in the western part (*Przewalski* ex *Maximowicz*).

25. **Senecio rubescens,** *S. Moore in Journ. Bot.* 1875, p. 228; *Hemsl. in Journ. Bot.* 1876, p. 208, *sub* Cacalia hastata.

KIANGSI: Kiukiang (*Shearer*! *Forbes*!). Herb. Kew.

26. **Senecio Sagitta,** *Maxim. in Mél. Biol.* xi. p. 240; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 11.

KANSUH: alpine regions in the west (*Przewalski* ex *Maximowicz*).

27. **Senecio sagittatus,** *Schultz-Bip. in Flora,* 1845, p. 498; *Maxim. in Mél. Biol.* ix. p. 292; *Franch. et Savat. Enum. Pl. Jap.* i. p. 250; *Franchet, Pl. David.* p. 176.

Cacalia hastata, *Linn. Sp. Pl.* ed. 1, p. 835; *DC. Prodr.* vi. p. 327.

CHIHLI: Jehol (*David*, 2093, ex *Franchet*); SHINGKING (*James*!). Mus. Brit.; Herb. Kew.

European Russia to Kamtschatka and Japan.

The Kiukiang plant referred to this species in the 'Journal of Botany' (1876, p. 208) is *S. rubescens*, S. Moore.

Var. ? involucri bracteis pappum æquantibus.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

The forms of the group of species to which this belongs are very numerous and perplexing.

28. **Senecio scandens**, *Ham. in D. Don, Prodr. Fl. Nep.* p. 178, non *Juss.* nec *DC.*; *Hook. f. Fl. Brit. Ind.* iii. p. 352.

Senecio campylodes, *DC. Prodr.* vi. p. 370; *Clarke, Comp. Ind.* p. 183; *Miq. in Journ. de Bot. Néerl.* i. p. 105 (var. puberulus).

Senecio stipulatus, *Wall. Cat.* 3122; *DC. Prodr.* vi. p. 370.

Senecio Wightianus, *DC. in Wight Contrib. Ind. Bot.* p. 22; *Wight, Ic. Pl. Ind. Or.* t. 1136.

Senecio chinensis, *DC. Prodr.* vi. p. 363; *Benth. Fl. Hongk.* p. 190; *Maxim. in Mél. Biol.* viii. p. 16.

Senecio Hindsii, *Benth. in Hook. Lond. Journ. Bot.* i. p. 488.

Senecio intermedius, *Wight, Ic. Pl. Ind. Or.* t. 1135.

Cineraria repanda, *Lour. Fl. Cochinch.* p. 501.

Cineraria chinensis, *Spreng. Syst. Veg.* iii. p. 549.

CHINA: without locality (*Staunton*! *Fortune*, 105!); KIANGSI: Yangtze (*Maries*!); HUPEH: Ichang, Nanto and neighbourhood (*A. Henry*, 385, 948, 2951, 2967!); KWANGTUNG: various localities (*Hance*, 1156! *Tate*! *Playfair*! *Calléry*! *Wenyon*!); HONGKONG (*Champion*! *Wright*! *Hinds*! *Wilford*!). Mus. Brit.; Herb. Kew.

North and South India and Ceylon.

29. **Senecio Schmidtii**, *Franch. et Savat. Enum. Pl. Jap.* i. p. 246.

Senecillis Schmidtii, *Maxim. in Mél. Biol.* viii. p. 16.

LUCHU ARCHIPELAGO (ex *Maximowicz*).

Japan; Mandshuria.

[*Senecio speciosus*, Willd. (Sp. Pl. iii. p. 1991; DC. Prodr. vi. p. 407), syn. *L. Pseudochina*, Andr. (Bot. Rep. t. 291), recorded as Chinese, is undoubtedly South African, as shown by Mr. N. E. Brown (Gard. Chron. n. s. xii. p. 615).]

**30. Senecio Stauntoni,** *DC. Prodr.* vi. p. 363; *Benth. Fl. Hongk.* p. 190; *Maxim. in Mél. Biol.* viii. p. 16.

CHINA; without locality (*Staunton*!); HONGKONG (*Harland*! *Champion*! *Wright*! *Wilford*! *Tate*!). Mus. Brit.; Herb. Kew.

**31. Senecio stenocephalus,** *Maxim. in Mél. Biol.* viii. p. 10; *Franch. et Savat. Enum. Pl. Jap.* i. p. 246; *Franchet, Pl. David.* p. 175.

CHIHLI: Jehol and the plain (*David*, 435, 2106, ex *Franchet*).

Japan.

**32. Senecio Syneilesis,** *Franch. et Savat. Enum. Pl. Jap.* i. p. 249.

Senecio palmatus, *Less. Syn. Comp.* p. 392, nec *Pall.* ex *Maxim. in Mél. Biol.* ix. p. 300; *DC. Prodr.* vi. p. 433.

Arnica palmata, *Thunb. Fl. Jap.* p. 319.

Syneilesis palmata, *Maxim. in Mél. Biol.* ix. p. 300.

Cacalia aconitifolia, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 181, non *Bunge*, fide *Maxim. loc. cit.*

COREAN ARCHIPELAGO: Herschel island and Kuper harbour (*Oldham*, 432, ex *Maximowicz*). Herb. Kew.

Also in Japan.

Oldham's 432 in the Kew Herbarium is clearly not the same as authentic specimens of *S. Syneilesis* from Japan, nor is it typical *S. aconitifolius*.

**33. Senecio tanguticus,** *Maxim. in Mél. Biol.* xi. p. 244.

KANSUH: alpine in woods in the west (*Przewalski* ex *Maximowicz*).

**34. Senecio Virgaurea,** *Maxim. in Mél. Biol.* xi. p. 241.

KANSUH: high alpine situations in the west (*Przewalski* ex *Maximowicz*).

**35. Senecio (§ Synotis)** *species indescripta*?; glabra, foliis amplis petiolatis membranaceis palmatim 5–7-lobatis simul grosse calloso-dentatis, capitulis subsessilibus racemoso-paniculatis (paniculis pauciramosis) sæpe 5-floris, floribus (♀ tantum adsunt?) omnibus tubulosis involucri bracteis multo brevioribus.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

This may be a female specimen of some described species, though we have failed to identify it.

[*Gorteria Loureiriana*, DC. (Prodr. vi. p. 501), syn. *G. setosa*, Lour. (Fl. Cochinch. p. 507), not of Linnæus, is an obscure plant referred to a genus which is restricted to the African region.]

## 71. COMPOSITÆ: CYNAROIDEÆ.

1. **Echinops dahuricus**, *Fisch. Cat. Hort. Gorenk.* p. 37, ex *DC. Prodr.* vi. p. 523; *Franchet, Pl. David.* p. 176, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 228; *Debeaux, Fl. Tchef.* p. 85.

Echinops Gmelini, *Ledeb. Fl. Alt.* iv. p. 45 in nota, et *Fl. Ross.* ii. p. 653, non *Turcz.*; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473.

Echinops Grijsii, *Hance in Ann. Sc. Nat.* 5me série, v. p. 221.

Echinops sphærocephalus, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 182; *Franch. et Savat. Enum. Pl. Jap.* i. p. 253, non *Linn.*

CHIHLI: near Peking (ex *Maximowicz*); SHANTUNG: without locality (*Maingay*!), Chefoo (*Forbes*!); FOKIEN: Amoy (*De Grijs*, hb. *Hance*, 1445!); FORMOSA (*Oldham*, 275!); COREA (*Carles*!); COREAN ARCHIPELAGO: Green Island (*Oldham*, 436!). Mus. Brit.; Herb. Kew.

Siberia to Japan.

The foregoing synonymy is adopted from Maximowicz as given on the label accompanying a Japanese specimen in the Kew Herbarium, collected by him.

[*Xeranthemum chinense*, Lour. (Fl. Cochinch. p. 498; DC. Prodr. vi. p. 529), has not been identified; but it is not at all probable that it belongs to the genus to which it has been referred.]

1. **Atractylis ovata**, *Thunb. Fl. Jap.* p. 306; *Franchet, Pl. David.* p. 177; *Miq. in Ann. Mus. Lugd.-Bat.* ii. p. 183; *Franch. et Savat. Enum. Pl. Jap.* i. p. 256.

Atractylis lancea, *Thunb. Fl. Jap.* p. 306.

Atractylis chinensis, *DC. Prodr.* vi. p. 549; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 383.

Atractylodes ovata, *DC. Prodr.* vii. p. 48.

Atractylodes lancea, *DC. Prodr.* vii. p. 48.

Atractylodes lyrata, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* n. 668.

Acarna chinensis, *Bunge, Enum. Pl. Chin. Bor.* p. 36; *Maxim. Prim. Fl. Amur.* p. 172.

CHIHLI: near Peking (*Bretschneider*! *Bushell*!); SHINGKING:

hills of south of Hingjing (*Ross*!); SHANTUNG (*Maingay*!); COREA: Soul mountains (*Carles*!); COREAN ARCHIPELAGO (*Oldham*, 439!). Mus. Brit.; Herb. Kew.

Mandshuria and Japan.

Botanists have hitherto maintained *A. ovata* and *A. lancea* of Thunberg as distinct species, though able to point out no more tangible character than the colour of the flowers, and the statements on this point are contradictory.

1. **Arctium Lappa**, *Linn. Sp. Pl.* ed. 1, p. 816, et ed. 2, p. 1143; *Hook. f. Fl. Brit. Ind.* iii. p. 359.

Arctium majus, *Schkuhr*; *Franchet, Pl. David.* p. 177.

Lappa major, *Gærtn. Fruct.* ii. p. 379, t. 162. f. 3; *DC. Prodr.* vi. p. 661; *Franch. et Savat. Enum. Pl. Jap.* i. p. 262; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 229; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 185.

Lappa edulis, *Sieb. in sched. hb. Kew., et Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 185; *Carr. in Rev. Hort.* 1872, p. 280.

NORTH and CENTRAL CHINA, apparently common. Dr. A. Henry sends both wild and cultivated specimens. Mus. Brit.; Herb. Kew.

Western Europe to Japan, and naturalized in many other countries.

1. **Carduus crispus**, *Linn. Sp. Pl.* ed. 1, p. 821; *DC. Prodr.* vi. p. 623; *Maxim. Prim. Fl. Amur.* p. 172; *Franch. et Savat. Enum. Pl. Jap.* i. p. 257; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473 (β. multiflorus, *DC.*).

CHIHLI: Peking (*Bretschneider*!); SHINGKING: Peiling and other localities (*Webster*! *James*!); SZECHUEN: above Chungking (*Faber*!). Mus. Brit.; Herb. Kew.

Europe and Northern Asia eastward to Japan.

1. **Cnicus arvensis**, *Hoffm. Deutschl. Fl.* ed. 2 (1804) ii. p. 130; *DC. Prodr.* vi. p. 643; *Maxim. in Mél. Biol.* ix. p. 333; *Franch. et Savat. Enum. Pl. Jap.* i. p. 262; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 229, *var.* setosus.

Cirsium arvense, *Scop.*, var. setosum, *Ledeb. Fl. Ross.* ii. p. 734; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 8.

CHIHLI: near Peking (*Bretschneider!*). Mus. Brit.; Herb. Kew.

Western Europe to Eastern Asia.

2. **Cnicus chinensis**, *Maxim. in Mél. Biol.* ix. p. 331; *Kurz in Journ. As. Soc. Beng.* 1877, p. 203.

Cirsium chinense, *Gard. et Champ. in Hook. Kew Journ. Bot.* i. p. 323; *Walp. Ann.* ii. p. 945; *Benth. Fl. Hongk.* p. 168.

Cirsium oreithales, *Hance in Walp. Ann.* ii. p. 944; *Seem. Bot. Voy. 'Herald,'* p. 394.

Cnicus sinensis, *Clarke, Comp. Ind.* p. 219; *Hook. f. Fl. Brit. Ind.* iii. p. 364.

CHINA: without locality (*Fortune*, 157!); FORMOSA (*Swinhoe!*); HUPEH: Ichang, Patung and neighbourhood (*A. Henry!*); KWANGTUNG (*Tate!*); HONGKONG (*Champion!* and all other collectors). Mus. Brit.; Herb. Kew.

Eastern India and Birma.

As Maximowicz suggests, this is almost certainly the same as the Japanese *Cnicus linearis*, Maxim. (Mél. Biol. ix. p. 330),—syn. *Carduus linearis*, Thunb. (Fl. Jap. p. 305), *Spanioptilon lineare*, Less. (Syn. Comp. p. 10), *Cirsium lineare*, Schultz-Bip. (Linnæa, xix. p. 335),—which Franchet records (Pl. David. p. 178) from Kiukiang, remarking that the specimens connect the two supposed species. *Cnicus linearis* would be the name to adopt for the aggregate.

[*Carduus chinensis*, DC. (Prodr. vi. p. 629),—syn. *Carduus lanceolatus*, Lour. (Fl. Cochinch. p. 482),—is described as having a pilose pappus, and is therefore a species of *Cnicus*, and from the description it is probably *C. chinensis*.]

3. **Cnicus japonicus**, *Maxim. in Mél. Biol.* ix. p. 322 (varietates $\alpha$–$\zeta$); *Franch. et Savat. Enum. Pl. Jap.* i. p. 260; *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 229.

Cirsium japonicum, *DC. Prodr.* vi. p. 640; *Hook. et Arn. Bot. Beech. Voy.* p. 266.

Carduus japonicus, *Franchet, Pl. David.* p. 178.

Cirsium Maackii, *Maxim. in Prim. Fl. Amur.* p. 172.

Cirsium littorale, *Maxim. loc. cit.* p. 173.

Cirsium brevicaule, *A. Gray in Mem. Amer. Acad.* n. s. vi. p. 396.

Carduus acaulis, *Thunb. Fl. Jap.* p. 306, ex *Maxim. in Mél. Biol.* ix. p. 322.

CHIHLI: Jehol (*David*, 2068, ex *Franchet*); SHINGKING: Tali-

enhwan (*Birnie*! *Swinhoe*!), Peiling (*Webster*!); SHANTUNG: Chefoo (*Forbes*!); KIANGSU: Shanghai (*Maingay*!); FOKIEN: Amoy (*Fortune*, 68! *De Grijs*, hb. *Hance*, 1452!); FORMOSA: Tamsui (*Oldham*, 276!); HUPEH: Ichang (*A. Henry*, 1370!); SZECHUEN: Chungking (*Faber*!); KWANGTUNG: around Canton (*Hance*, 1452, 11994!). Mus. Brit.; Herb. Kew.

Japan.

The plant recorded by Loureiro (Fl. Cochinch. p. 482) as *Carduus tuberosus*, Linn., may have been this species.

4. **Cnicus Segetum**, *Maxim. in Mél. Biol.* ix. p. 333.

Cirsium segetum, *Bunge, Enum. Pl. Chin. Bor.* p. 36; *DC. Prodr.* vi. p. 643; *Baker & S. Moore in Journ. Linn. Soc.* xvii. p. 383; *Debeaux, Fl. Tchef.* p. 86, *Fl. Shangh.* p. 38, et *Fl. Tients.* p. 25.

Carduus segetum, *Franchet, Pl. David.* p. 178.

CHIHLI: near Peking (*Bushell*! *Bunge*! *Bretschneider*!); SHINGKING, Jaoling (*Ross*!), Talienhwan (*Birnie*! *Swinhoe*!); SHANTUNG: Chefoo (*Forbes*!); KIANGSU: Shanghai (*Perry*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and Nanto (*A. Henry*!); SZECHUEN: Omei (*Faber*!); COREA (*Perry*!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*! *Oldham*, 444!). Mus. Brit.; Herb. Kew.

Mandshuria.

This, though very near *Cnicus arvensis*, var. *setosus*, is easily distinguished; and we have followed Maximowicz in retaining it as a distinct species.

5. **Cnicus tchefouensis**, *Franch. in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 229.

Cirsium tchefouensis, *Debeaux, Fl. Tchef.* p. 86.

SHANTUNG: Chefoo (ex *Debeaux*).

A specimen in the Kew Herbarium collected at Chefoo by F. B. Forbes may be this species.

6. **Cnicus Vlassovianus**, *Maxim. in Mél. Biol.* ix. p. 329.

Cirsium Vlassovianum, *Fisch. in DC. Prodr.* vi. p. 653; *Maxim. Prim. Fl. Amur.* p. 175.

SHINGKING: Laoyehling and other hills near Moukden (*James*!). Herb. Kew.

Dahuria to Mandshuria.

1. **Saussurea * affinis**, *Spreng. in DC. Prodr.* vi. p. 540; *Clarke, Comp. Ind.* p. 232; *Hook. f. Fl. Brit. Ind.* iii. p. 373.

Saussurea carthamoides, *Benth. Fl. Hongk.* p. 168, et *Fl. Austral.* iii. p. 456.

Aplotaxis carthamoides, *DC. Prodr.* vi. p. 540.

Serratula carthamoides, *Buch. ex Roxb. Fl. Ind.* iii. p. 407.

Aplotaxis multicaulis, *DC. Prodr.* vi. p. 540; *Deless. Ic. Pl. Sel.* iv. t. 68; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 183.

Aplotaxis Bungei, *DC. Prodr.* vi. p. 539.

Hemistepta lyrata, *Bunge in Dorpat, Jahrb. für Litt.* i. p. 221, et *in Fisch. et Mey. Ind. Sem. Hort. Petrop.* ii. 1835, p. 13; *Maxim. in Mél. Biol.* ix. p. 334.

Cirsium lyratum, *Bunge, Enum. Pl. Chin. Bor.* p. 36.

Serratula tinctoria, *Sieb. ex Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 183.

Saussurea Bungei, *Benth. et Hook. f. ex Franch. et Savat. Enum. Pl. Jap.* i. p. 255; *Franchet, Pl. David.* p. 182.

CHIHLI, SHINGKING, and COREA to SZECHUEN, HONGKONG, and FORMOSA! apparently very common. Mus. Brit.; Herb. Kew.

Eastern India, Birma, Japan, and Eastern Australia.

2. **Saussurea amara**, *DC. in Ann. Mus. Par.* xvi. p. 200, et *Prodr.* vi. p. 536; *Ledeb. Fl. Ross.* ii. p. 664; *Franchet, Pl. David.* p. 181.

CHIHLI: mountains near Peking (*David*, 2420, ex *Franchet*).

Siberia, from the Ural eastward.

Père David's number 2420 is also cited by Franchet under *Saussurea japonica*, which is represented in the Kew Herbarium by this number.

3. **Saussurea arenaria**, *Maxim. in Mél. Biol.* xi. p. 250.

KANSUH: sand places on the upper Hoangho (*Przewalski* ex *Maximowicz*).

4. **Saussurea crassifolia**, *DC. in Ann. Mus. Par.* xvi. p. 201, et *Prodr.* vi. p. 533; *Ledeb. Fl. Ross.* ii. p. 665.

SHINGKING: Peiling (*Webster*!). Herb. Kew.

Caucasus, eastward to Mandshuria.

5. **Saussurea Davidii**, *Franchet, Pl. David.* p. 180, t. 16, *cum* var. macrocephala.

* Franchet (in Morot's Journ. de Bot. ii. 1888, p. 311) gives the names and sectional position of fifteen new species of *Saussurea* from Yunnan, but the descriptions have not yet appeared.

CHIHLI: Jehol and the plain of Chihli (*David*, 405, 2208, ex *Franchet*).

6. **Saussurea epilobioides,** *Maxim. in Mél. Biol.* xi. p. 256.

KANSUH: alpine thickets in the western regions (*Przewalski* ex *Maximowicz*).

7. **Saussurea eriolepis,** *Bunge in DC. Prodr.* iv. p. 535 (*sub* S. discolor, β. elatior); *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473; *Franchet, Pl. David.* p. 179.

Saussurea nivea, *Turcz. in Bull. Soc. Nat. Mosc.* 1837, vii. p. 153; *Walp. Rep.* ii. p. 668.

Saussurea amurensis, *Turcz. in DC. Prodr.* vi. p. 534.

CHIHLI: mountains near Peking (*Bretschneider*! *Mœllendorff*! *Bullock*! *Carles*!); HUPEH: Patung district (*A. Henry*!). Mus. Brit.; Herb. Kew.

Mandshuria.

Dr. Henry's specimens from Patung connect this with *S. amurensis*, Turcz., in most of the leaves being cuneate, not cordate, at the base, which is here accordingly reduced.

8. **Saussurea glomerata,** *Poir. in Lam. Encycl. Suppl.* v. p. 71; *DC. Prodr.* vi. p. 536; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473; *Debeaux, Fl. Shangh.* p. 38; *Ledeb. Fl. Ross.* ii. p. 664.

CHIHLI: Peking (ex *Maximowicz*); KIANGSU: Shanghai (ex *Debeaux*).

European Russia to Kamtschatka.

We have probably referred to *S. japonica* what others have referred to *S. glomerata*.

9. **Saussurea iodostegia,** *Hance in Journ. Bot.* 1878, p. 109; *Franchet, Pl. David.* p. 179.

CHIHLI: Siaowutaishan (*Hancock*, hb. *Hance*, 20,148!), Peking mountains (*David*, 418, ex *Franchet*). Mus. Brit.

10. **Saussurea japonica,** *DC. in Ann. Mus. Par.* xvi. p. 200, et *in Prodr.* vi. p. 536; *Benth. Fl. Hongk.* p. 167; *Maxim. in Mél. Biol.* ix. p. 337; *Hance in Journ. Linn. Soc.* xiii. p. 108; *Franchet, Pl. David.* p. 181.

Serratula japonica, *Thunb. Fl. Jap.* p. 305.

Saussurea pulchella, *Fisch. in DC. Prodr.* vi. p. 537; *Herder in Pl. Radd.* iii. 2. p. 50.

Saussurea linearis, *Champ. in Hook. Kew Journ. Bot.* iv. p. 235; *Walp. Ann.* v. p. 353.

Saussurea intermedia, *Turcz. Dec. Pl. Nov. Chin. Bor.* n. 15.

Saussurea alata, *DC. in Ann. Mus. Par.* xvi. p. 202, t. 8, et *in Prodr.* vi. p. 537.

Saussurea (Aplotaxis) chinensis, *Schultz-Bip. in Flora*, 1852, p. 48, absque descriptione.

CHIHLI: neighbourhood of Peking (*David*, 2420! *Bretschneider*!); SHINGKING: Moukden and other localities (*Ross*! *Webster*!); KIANGSU: Shanghai (*Maingay*! *Carles*!); FOKIEN: Amoy (*Fortune*, 19! *Hance*, 834!); HUPEH: Ichang, Patung, and Nanto (*A. Henry*!); KWANGTUNG: Macao and Canton (*Gaudichaud*!); HONGKONG (*Champion*! *Urquhart*! *Wright*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Dahuria to Japan.

11. **Saussurea Katochæte**, *Maxim. in Mél. Biol.* xi. p. 251.

KANSUH: in alpine meadows along the river Tetung (*Przewalski* ex *Maximowicz*).

12. **Saussurea lamprocarpa**, *Hemsl.*, n. sp.

*Herba* perennis ?, ramosa (*S. hypoleucæ* Indiæ orientalis valde affinis), caulibus robustis crassiusculis sulcatis vel profunde striatis primum araneosis. *Folia* (caulina tantum adsunt) petiolata, vel suprema minora sessilia, papyracea, cordato-oblonga, cordato-ovata, vel cordato-deltoidea (suprema lanceolata utrinque attenuata), absque petiolo usque ad 5 poll. longa, irregulariter calloso-dentata (inferiora simul sublobata), minute calloso-apiculata, basi cordata vel cuneata, discoloria, subtus incana, supra puberula, venis primariis paucis sat conspicuis; petiolus crassus, usque ad 2 poll. longus. *Capitula* pauca, maxima (saltem $2\frac{1}{2}$ poll. diametro), longe pedunculata, pedunculis fere nudis; involucri bracteæ plus minusve araneoso-tomentosæ, multiseriatæ, angustæ, elongatæ, acutissimæ, integræ, vel apicem versus paucidenticulatæ, sed vix explanatæ; receptaculum alte convexum, densissime paleaceum, paleis angustissimis fere setaceis quam achænia longioribus. *Corollæ* circiter 9 lineas longæ, tubo fere filiformi supra medium subite leviter expanso, lobis longis linearibus; antheræ caudæ longissimæ, angustissimæ, plus minusve fissæ. *Achænia* nigra, nitida, rugosa, subtetragona, areola parva leviter obliqua; pappus exterior ad cupulam brevem rigide denticulatam reductus, interior uniseriatus, albidus, longe plumosus, corolla brevior.

HUPEH: Patung district, Nanto and mountains to the northward (*A. Henry*, 2470, 2675, 4972!). Herb. Kew.

This is very distinct from all the other Chinese species that we have seen, and closely resembles the Indian *S. hypoleuca*, which has smaller heads, quite entire bracts, and a rusty pappus. The small areole of the achene is certainly more or less oblique, as in *Serratula*.

13. **Saussurea Medusa**, *Maxim. in Mél. Biol.* xi. p. 246.

KANSUH: in high alpine situations on the river Tangut (*Przewalski* ex *Maximowicz*).

Also in Mongolia.

14. **Saussurea microcephala**, *Franchet*, n. sp.

"Caulis inferne . . . . superne angulato-striatus, penna columbinæ crassitie. *Folia* superiora integerrima, anguste oblonga, sesquipollicaria, apice obtusa, mucronulata. *Corymbus* polycephalus, e ramis 2–3 divis. ramulis 3–5-cephalis conflatus, subcoarctatus; pedicelli infra medium bracteolati, capitulis 1½–2plo longiores. *Capitula florentia* parvula, circiter 1 cent. longa, vix 2½–3 millim. lata, basi rotundata, apice vix attenuata, subcylindrica; involucri bracteæ 5-seriatæ, breviter arachnoideæ, dorso valide uninerviatæ, marginibus et apice membrana tenui rosea donatæ, appendice terminali rhomboideo integro."—*Franchet.*

CHEKIANG: Tatsiang (*Poli* ex *Franchet*).

"Le *Saussurea microcephala* paraît bien distinct par ses capitules très petits, très nombreux, formant un corymbe serré. Je n'ai vu que la portion supérieure de la plante. Les feuilles sont très longuement atténuées et portent à leur aisselle un faisceau de petites feuilles très diminuées. Les rameux qui constituent le corymbe sont eux mêmes pourvus de quelques petites feuilles linéaires longues à peine de 1 cent., et plus aiguës que celles de la tige; ces rameaux sont plus ou moins divisés dans leur moitié supérieure."

"Le *S. microcephala* doit être placé dans la section *Theodora*, à côté du *S. amara*, DC., dont, du reste, il est bien distinct."—*Franchet in litt.*

15. **Saussurea nigrescens**, *Maxim. in Mél. Biol.* xi. p. 251.

KANSUH: alpine meadows, common and gregarious (*Przewalski* ex *Maximowicz*).

16. **Saussurea odontolepis**, *Schultz-Bip.* ex *Maxim. in Mél. Biol.* xi. p. 803.

Saussurea pectinata, β. amurensis, *Maxim. Prim. Fl. Amur.* p. 171.
Saussurea ussuriensis, δ. odontolepis, *Herder in Pl. Radd.* iii. 2. p. 13.

SHINGKING: without locality (*Ross*!); COREA: Chemulpo (*Carles*!). Herb. Kew.

Also in Mandshuria.

17. **Saussurea paleata,** *Maxim. in Prim. Fl. Amur.* p. 168.

NORTH CHINA: without locality (*Reliq. Fisch.* ex *Maximowicz*).

We have seen no specimens of this species, which is described as very closely allied to *S. ussuriensis.*

18. **Saussurea pectinata,** *Bunge in DC. Prodr.* vi. p. 538; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473.

CHIHLI: near Peking (*Bretschneider*! *Williams*!). Mus. Brit.; Herb. Kew.

19. **Saussurea phæantha,** *Maxim. in Mél. Biol.* ix. p. 248.

KANSUH: western alpine regions (*Przewalski* ex *Maximowicz*).

20. **Saussurea Przewalskii,** *Maxim. in Mél. Biol.* ix. p. 255.

KANSUH: western alpine regions among shrubs (*Przewalski* ex *Maximowicz*).

21. **Saussurea salicifolia,** *DC. in Ann. Mus. Par.* xvi. p. 200, et *Prodr.* iv. p. 533; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 28 (var. chinensis).

Saussurea alpina, var. leucophylla, *Hance in Journ. Bot.* 1878, p. 109.

CHIHLI: Siaowutaishan (*Hancock*, hb. *Hance*, 20128!). Mus. Brit.

*S. salicifolia*, DC., is a very variable species, extending from the Ural to Eastern Siberia. Dr. Henry's 153, 931, and 2533, from the Patung district, Hupeh, may be an extreme form of this.

22. **Saussurea serrata,** *DC. in Ann. Mus. Par.* xvi. p. 199, et *Prodr.* vi. p. 534; *Franchet, Pl. David.* p. 180.

CHIHLI: Jehol (*David*, 2104, ex *Franchet*).

Widely spread in Siberia.

23. **Saussurea Stella,** *Maxim. in Mél. Biol.* xi. p. 249.
KANSUH: alpine meadows along the Tetung river (*Przewalski* ex *Maximowicz*).

24. **Saussurea sylvatica,** *Maxim. in Mél. Biol.* xi. p. 256.
KANSUH: western alpine regions (*Przewalski* ex *Maximowicz*).

25. **Saussurea tangutica,** *Maxim. in Mél. Biol.* xi. p. 247.
KANSUH: western high alpine regions (*Przewalski* ex *Maximowicz*).

26. **Saussurea triangulata,** *Trautv. et Meyer in Middendorff's Reise, Fl. Ochot.* p. 58, t. 29; *Franchet, Pl. David.* p. 181.
CHIHLI: Peking (*David*, 535, ex *Franchet*).
Eastern Siberia.
A specimen collected by Ford at Lofaushan (Kwangtung), at an elevation of 3100 feet, is perhaps a variety of this. And Dr. Henry's 414 (Patung) is of the same affinity; but so many of Mr. Maximowicz's new species are not represented in the London herbaria, that we cannot determine whether it be undescribed.

27. **Saussurea ussuriensis,** *Maxim. Prim. Fl. Amur.* p. 167 (varietates), et *in Mél. Biol.* ix. p. 340; *Franchet, Pl. David.* p. 181 (var. mongolica), et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 228.
CHIHLI: Jehol (*David*, 2110, 2141, ex *Franchet*); SHANTUNG: Chefoo (*Forbes*!); KIANGSU: Shanghai (*Maingay*!). Herb. Kew.
Mandshuria and Japan.

28. **Saussurea,** sp. indescript.? *S. Tanakæ* valde affinis, differt foliis non decurrentibus.
KIANGSI: Kiukiang (*Shearer*!) Herb. Kew.
The specimen bears only two or three imperfect leaves; and there is also a fragment of the same species in herb. Forbes.

1. **Serratula atriplicifolia,** *Benth. et Hook. f. Gen. Pl.* ii. p. 475.
Rhaponticum atriplicifolium, *DC. Prodr.* vi. p. 662; *Ledeb. Fl. Ross.*

ii. p. 751; *Maxim. Prim. Fl. Amur.* p. 175; *Franchet, Pl. David.* p. 183; *Franch. et Savat. Enum. Pl. Jap.* i. p. 262.

Rhaponticum pungens, *Franch. et Savat. Enum. Pl. Jap.* i. p. 263?

Serratula pungens, *Franch. et Savat. Enum. Pl. Jap.* ii. p. 416?

CHIHLI: in the plain (*David*, 564, ex *Franchet*); SHANTUNG (*Maingay*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and Patung districts (*A. Henry*, 430, 2455, 4618, 5111!); COREAN ARCHIPELAGO (*Oldham*, 464!). Herb. Kew.

Dahuria, Mandshuria, Sachalin, and Japan.

With a considerable series of specimens it seems difficult to retain *S. pungens* as an independent species.

2. **Serratula centauroides**, *Linn. Sp. Pl.* ed. 1, p. 820; *DC. Prodr.* vi. p. 668; *Bunge, Enum. Pl. Chin. Bor.* p. 37; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473; *Ledeb. Fl. Ross.* ii. p. 757; *Franchet, Pl. David.* p. 183.

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Bushell*! *Williams*!). Mus. Brit.; Herb. Kew.

Siberia, from Dahuria eastward.

3. **Serratula chinensis**, *S. Moore in Journ. Bot.* 1875, p. 228; *Franchet, Pl. David.* p. 182.

KIANGSI: Kiukiang (*Shearer*! *David* ex *Franchet*). Herb. Kew.

4. **Serratula coronata**, *Linn. Sp. Pl.* ed. 2, p. 1144; *DC. Prodr.* vi. p. 667; *Ledeb. Fl. Ross.* ii. p. 756; *Franch. et Savat. Enum. Pl. Jap.* i. p. 263.

CHIHLI: Peking (*Bretschneider*!); COREA: Chemulpo (*Carles*!). Herb. Kew.

European Russia to Japan.

[*Serratula multiflora*, Lour. (Fl. Cochinch. p. 483), non Linn., is perhaps a species of *Saussurea*.]

5. **Serratula radiata**, *Bieb. Fl. Taur. Cauc.* iii. p. 545; *DC. Prodr.* vi. p. 668; *Ledeb. Fl. Ross.* ii. p. 757; *Franchet, Pl. David.* p. 183.

CHIHLI: Jehol (*David* ex *Franchet*).

The Caucasus eastward.

[*Serratula Scordium*, Lour. (Fl. Cochinch. p. 483), is another obscure plant, almost certainly not of this genus.]

1. **Centaurea Picris**, *Pall. in Willd. Sp. Pl.* iii. p. 2302.

Acroptilon Picris, *DC. Prodr.* vi. p. 662; *Ledeb. Fl. Ross.* ii. p. 750; *Franchet, Pl. David.* p. 183.

KANSUH: north of the Hoangho (*Piasezki* ex *Maximowicz* in litt.).

Central Russia and Asia Minor to North-west India and Siberia.

[*Centaurea moschata*, Linn. (*Amberboa moschata*, DC.), is commonly cultivated in gardens around Peking.]

2. **Centaurea monanthos**, *Georgi, Itin.* i. p. 231, ex *Ledeb. Fl. Ross.* ii. p. 751.

Centaurea grandiflora, *Pall. Itin.* iii. pp. 237, 321.

Centaurea membranacea, *Lam. Encycl.* i. p. 666.

Rhaponticum uniflorum, *DC. Prodr.* vi. p. 664; *Ledeb. Fl. Ross.* ii. p. 751; *Maxim. Prim. Fl. Amur.* p. 176, et *Ind. Fl. Pek.* p. 473; *Franchet, Pl. David.* p. 183.

Leuzea dahurica, *Bunge, Enum. Pl. Chin. Bor.* p. 37.

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Hancock*!), Jehol (*David*, 1746!); SHINGKING: Peiling (*Webster*!), Fungshan (*Ross*!); COREA: Chemulpo (*Carles*!). Mus. Brit.; Herb. Kew.

Altai eastward.

[*Carthamus tinctorius*, Linn., is extensively cultivated in China (Bretschn. Early Res. p. 160), and is more or less naturalized in some parts.]

## 71. COMPOSITÆ: MUTISIACEÆ.

1. **Ainsliæa acerifolia**, *Schultz-Bip. in Pollichia*, xviii. p. 188; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 187; *Franch. et Savat. Enum. Pl. Jap.* i. p. 264.

Ainsliæa affinis, *Miq. loc. cit.*

COREA: Soul mountains (*Carles*!); COREAN ARCHIPELAGO: Green Island (*Oldham*, 441!). Herb. Kew.

Japan.

2. **Ainsliæa fragrans**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 236; *Walp. Ann.* v. p. 311; *Benth. Fl. Hongk.* p. 192; *Franchet, Pl. David.* p. 184; *S. Moore in Journ. Bot.* 1875, p. 231.

KIANGSI: Kiukiang (*Shearer!*); HONGKONG (*Champion!*). Mus. Brit.; Herb. Kew.

3. **Ainsliæa glabra**, *Hemsl.*, n. sp. (Plate XIV.)

*Herba* perennis, dioica?, erecta, $1\frac{1}{2}$–2 ped. alta, fere undique glaberrima, caulibus infra inflorescentiam simplicibus paucifoliatis. *Folia* longe petiolata, subcarnosa, lanceolato-oblonga vel oblanceolata, cum petiolo usque ad 9 poll. longa, utrinque attenuata, remote minuteque calloso-denticulata, venis primariis paucis sat conspicuis inter se anastomosantibus. *Capitula* minima, sæpissime triflora, unisexualia, in paniculas angustas disposita, pedunculata, pedunculis gracillimis puberulis. *Flores* ♀ tantum visi; corolla anguste cylindrica, pappo dimidio brevior. *Achænia* fusiformia, glabra, profunde striata; pappus uniseriatus, plumosus.

SZECHUEN: Mount Omei, at 4000 feet (*Faber!*). Herb. Kew.

The fact of the flowers being functionally unisexual should not exclude this plant from the genus *Ainsliæa*, because, although the flowers are usually described as all alike and all fertile, there are other species in which the sexes are apparently separated.

4. **Ainsliæa pertyoides**, *Franchet in Morot's Journ. de Bot.* ii. 1888, p. 70, t. 3.

YUNNAN: in various localities at 5000 to 6000 feet (*Delavay* ex *Franchet*).

5. **Ainsliæa pteropoda**, *DC. Prodr.* vii. p. 14; *Hook. f. Fl. Brit. Ind.* iii. p. 388; *Franchet in Morot's Journ. de Bot.* ii. 1888, p. 69 (varietates obovata, platyphylla, *et* leiophylla).

YUNNAN: various localities (*Delavay* ex *Maximowicz*).

Northern and Eastern India.

6. **Ainsliæa ramosa**, *Hemsl.*, n. sp.

*Herba* perennis, rufo-villosa, sericea, *Ainsliææ fragranti* simillima, differt capitulis laxe paniculatis, involucri bracteis paucioribus, etc. *Caulis* erectus, 2–3 ped. altus, infra inflorescentiam simplex. *Folia* crassa, ovato-oblonga, basi interdum subcordata, radicalia longe petiolata, caulina pauca, suprema minima, bracteiformia. *Capitula* graciliter pedunculata, triflora; involucri bracteæ rigidæ, acutissimæ. *Achænia* (matura carent) pilis longissimis sursum appressis densissime vestita; pappus rufus, plumosus.

HUPEH: Nanto and mountains to the northward (*A. Henry*!). Herb. Kew.

This may possibly prove a branched state of *A. fragrans*, which it so strongly resembles in foliage and indumentum.

7. **Ainsliæa Walkeri**, *Hook. f. in Bot. Mag.* t. 6225.

HONGKONG: cultivated specimens raised from seed collected by Captain Walker. Herb. Kew.

8. **Ainsliæa yunnanensis**, *Franchet in Morot's Journ. de Bot.* ii. 1888, p. 70.

YUNNAN: in mountain-woods above Tapintze (*Delavay* ex *Franchet*).

1. **Myripnois dioica**, *Bunge, Enum. Pl. Chin. Bor.* p. 38; *DC. Prodr.* vii. p. 38; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473; *Franchet, Pl. David.* p. 184.

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Bushell*! *Hancock*! *Carles*!), Jehol (*David*, 1692!). Mus. Brit.; Herb. Kew.

2. **Myripnois uniflora**, *Maxim. in Mél. Biol.* xi. p. 257.

KANSUH: western alpine regions not far from the small town Huidun (*Przewalski* ex *Maximowicz*).

1. **Nouelia insignis**, *Franchet in Morot's Journ. de Bot.* ii. 1888, p. 67, t. 2.

YUNNAN: woods and hills around Tapintze (*Delavay* ex *Franchet*).

A very remarkable member of this suborder, forming a large shrub or small tree 10 to 16 feet high.

1. **Gerbera Anandria**, *Schultz-Bip. in Flora*, xxvii. 1844, p. 782; *Walp. Rep.* vi. p. 316; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 383; *Franchet, Pl. David.* p. 184, *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 229, et *in Morot's Journ. de Bot.* ii. 1888, p. 68; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 29.

Anandria Bellidiastrum, *DC. Prodr.* vii. p. 40; *Debeaux, Fl. Tchef.* p. 87.

Anandria dimorpha, *Turcz. Cat. Baikal.* n. 695, ex *Ledeb. Fl. Ross.* ii. p. 768.

Tussilago Anandria, *Linn. Sp. Pl.* ed. 1, p. 865; *Lour. Fl. Cochinch.* p. 503.

Perdicium Anandria, *R. Br. in Ait. Hort. Kew.* ed. 2, v. p. 84.
Tussilago Bellidiastrum, *Linn. Hort. Upsal.* p. 259, t. 3. f. 2.
Tussilago lyrata, *Willd. Sp. Pl.* iii. p. 1963.
Leibnitzia phænogama, *Cass. in Dict. Sc. Nat.* xxv. p. 422.
Chaptalia lyrata, *Spreng. Syst. Veg.* iii. p. 504, non *Don.*
Anandria radiata, *Less. Syn. Comp.* p. 120.
Anandria discoidea, *Less. in Linnæa,* v. p. 347.
Leibnitzia cryptogama, *Cass. in Dict. Sc. Nat.* xxv. p. 422.
Perdicium tomentosum, *Thunb. Fl. Jap.* p. 319, ex *Less.*

CHIHLI: near Peking (*Bunge*! *Bretschneider*! *Hancock*!); SHINGKING: Changdien (*Ross*!), Kaichow to Kinchow (*Ross*!); SHANTUNG: Chefoo (*Hancock*! *Maingay*!); CHEKIANG: Ningpo (*Maingay*!); KIANGSI: Kiukiang (*Shearer*!); HUPEH: Ichang and Patung district (*A. Henry*!); COREA (*Carles*!). Mus. Brit.; Herb. Kew.

Eastern Siberia, Mandshuria, and Japan.

There is a spring form and an autumn form of this species, and they are very different in aspect; hence the double synonymy.

2. **Gerbera Delavayi,** *Franchet in Morot's Journ. de Bot.* ii. 1888, p. 68.

YUNNAN: in woods at Chouitsinin at about 5500 feet (*Delavay* ex *Franchet*).

3. **Gerbera piloselloides,** *Cass. in Dict. Sc. Nat.* xviii. p. 461; *DC. Prodr.* vii. p. 16; *Benth. Fl. Hongk.* p. 191; *Hook. f. Fl. Brit. Ind.* iii. p. 389; *Oliver, Fl. Trop. Afr.* iii. p. 445.

Gerbera ovalifolia, *DC. Prodr.* vii. p. 17; *Clarke, Comp. Ind.* p. 249.
Gerbera amabilis, *Hance in Walp. Ann.* ii. p. 947.
Gerbera Schimperi, *Schultz-Bip.*; *Richard, Fl. Abyss.* i. p. 458.

FOKIEN: Amoy (*Fortune*, 121! *Swinhoe*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!); KWANGTUNG (*Tate*!); HONGKONG (*Champion*! *Wilford*! *Wright*! *Tate*!). Mus. Brit.; Herb. Kew.

Mountains of North India, Birma, Madagascar, and Eastern Africa, southward to Cape Colony.

4. **Gerbera raphanifolia,** *Franchet in Morot's Journ. de Bot.* ii. 1888, p. 67.

YUNNAN: woods at Mochetsin (*Delavay* ex *Franchet*).

5. **Gerbera ruficoma,** *Franchet in Morot's Journ. de Bot.* ii. 1888, p. 68.

YUNNAN: in thickets above Tapintze (*Delavay* ex *Franchet*).

## 71. COMPOSITÆ: Cichoriaceæ.

1. **Cichorium Intybus,** *Linn. Sp. Pl.* ed. 1, p. 813; *DC. Prodr.* vii. p. 84; *Hook. f. Fl. Brit. Ind.* iii. p. 391; *A. DC. Orig. Pl. Cult.* ed. 3, p. 77; *Bretschn. Early Res.* p. 160.

Kiangsi: Kiukiang (*Shearer*!). Herb. Kew.

The Chicory so readily colonizes and is so widely cultivated that it is impossible to determine exactly where it is indigenous, though doubtless somewhere in the Mediterranean region or further eastward in Asia.

*Cichorium Endivia*, Linn., the Endive, which is regarded by some botanists as a variety of the Chicory and by others as a distinct species, is cultivated in China.

1. **Lampsana apogonoides,** *Maxim. in Mél. Biol.* ix. p. 20; *Franch. et Savat. Enum. Pl. Jap.* i. p. 266; *Franch. Pl. David.* p. 185.

Kiangsu: Shanghai (*Carles*!); Kiangsi: Kiukiang (*Faber*!); Hupeh: Ichang and immediate neighbourhood (*A. Henry*, 1270!); Shensi (*David* ex *Franchet*). Herb. Kew.

Japan.

1. **Picris hieracioides,** *Linn. Sp. Pl.* ed. 1, p. 792; *DC. Prodr.* vii. p. 128; *Hook. f. Fl. Brit. Ind.* iii. p. 393; *Franchet, Pl. David.* p. 185, et *in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 230 (var. japonica).

Picris japonica, *Thunb. Fl. Jap.* p. 299; *DC. Prodr.* vii. p. 130; *Debeaux, Fl. Tchef.* p. 89.

Chihli: Peking (*Bretschneider*!); Shingking: Kaichow to Kinchow (*Ross*!); Hupeh: Ichang, Patung, and Nanto (*A. Henry*!); Shantung: Chefoo (*Fauvel* ex *Franchet*). Mus. Brit.; Herb. Kew.

Western Europe and North Africa to Japan and Kamtschatka; also in Australia and New Zealand, where, however, it may have been introduced, as well as in North America.

[*Picris repens*, Lour. (Fl. Cochinch. p. 478), syn. *Barkhausia repens*, DC. (Prodr. vii. p. 159), an insufficiently described plant, has not been recognized.]

1. **Crepis heterophylla,** *Hemsl.*, n. sp.

*Herba* biennis ?, 2–3 ped. alta, undique glaberrima, caulibus subsimplicibus crassiusculis striatis. *Folia* membranacea, radicalia lyrato-pinnatifida, 6–8 poll. longa, segmento terminali multo majore hastato-trilobato, segmentis lateralibus parvis distantibus; folia caulina petiolata, inferiora alte hastato-trilobata, superiora lanceolata, longe acuminata acutissima, omnia remotissime calloso-denticulata. *Capitula* fere omnino ut in *C. japonica*, dense corymbosa. *Achænia* fusca, erostrata, multistriata, puberula.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*!). Herb. Kew.

This approaches very closely the form of *C. japonica* formerly treated as a distinct species under the name of *C. runcinata*, and it is certainly possible that this also is a variety of *C. japonica*, as well as our *C. longipes*, for, with the exception of stature and foliage, there are no very obvious differences.

2. **Crepis integra,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 190; *Maxim. in Mél. Biol.* ix. p. 348.

Prenanthes integra, *Thunb. Fl. Jap.* p. 300; *Hook. et Arn. Bot. Beech. Voy.* p. 266.

Youngia lanceolata, *DC. Prodr.* vii. p. 193.

Prenanthes lanceolata, *Houtt. Pfl. Syst.* ix. p. 49, t. 66. f. 2; *Willd. Sp. Pl.* iii. p. 1534.

Crepis tanegana, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* iii. p. 198.

Youngia integra, *A. Gray, Bot. Jap. in Mem. Amer. Acad.* n. s. vi. p. 396.

Crepis nana, *Schultz-Bip. in Flora,* 1852, p. 48, non *Richards.*

KIANGSU: Shanghai (*Carles* ?); FOKIEN: Chinchew (*Fortune*, 27!); LUCHU ARCHIPELAGO (*Beechey*! *Wright*!). Mus. Brit.; Herb. Kew.

Japan.

3. **Crepis japonica,** *Benth. Fl. Hongk.* p. 194, et *Fl. Austral.* iii. p. 670; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 190; *Maxim. in Mél. Biol.* ix. p. 346; *Franchet, Pl. David.* p. 185; *Hook. f. Fl. Brit. Ind.* iii. p. 395.

Prenanthes japonica, *Linn. Mant.* p. 107; *Thunb. Fl. Jap.* p. 302; *Hook. et Arn. Bot. Beech. Voy.* p. 266.

Youngia japonica, *DC. Prodr.* vii. p. 194.

Crepis lyrata, *Benth.* ex *Maxim. in Mél. Biol.* ix. p. 346.

Youngia Thunbergiana, *DC. Prodr.* vii. p. 192.

Prenanthes lyrata, *Thunb. Fl. Jap.* p. 303; *Bunge, Enum. Pl. Chin. Bor.* p. 40.

**Youngia runcinata, Y. napifolia, Y. Poosia, Y. ambigua, Y. fastigiata, *et* Y. striata,** *DC. Prodr.* vii. pp. 192–193, ex *Hook. f. Fl. Brit. Ind.* iii. p. 395.

CHIHLI: near Peking (*Bunge*!); KIANGSU: Shanghai (*Maingay*! *Perry*!); CHEKIANG: Ningpo (*Oldham*, 80!); KIANGSU: Kiukiang (*Maries*!); FOKIEN: Amoy (*Hance*, 1465!); FORMOSA (*Oldham*, 280!); HUPEH: Ichang, Patung and neighbourhood (*A. Henry*!); KWANGTUNG (*Tate*! *Calléry*!); HONGKONG (*Wilford*! *Wright*! *Champion*!); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*!); LUCHU ARCHIPELAGO (*Wright*! *Beechey*!). Mus. Brit.; Herb. Kew.

India to Japan and southward to Australia; also found in the Mauritius and South Africa, where, however, it may be a colonist.

An exceedingly variable plant in stature and in the shape of the leaves; the flowering-stems being either naked or scape-like, or more or less leafy, and sometimes three feet high. Remarkable among several varieties collected by Dr. A. Henry is one in which the primary and secondary branches of the inflorescence are given off in a close corymbose order. Another variety, if correctly referred here, has a stout hollow stem and large leaves, indicating humid or very rich soil.

[*Youngia gracilis*, Miq. (Journ. de Bot. Néerl. t. i. p. 106), from Kwangtung, is probably a variety of *Crepis japonica*.

*Youngia humilis*, DC. (Prodr. vii. p. 194), syn. *Prenanthes humilis*, Thunb. (Fl. Jap. p. 302), enumerated by DeCandolle among his "*species non satis notæ*," and quite unknown to us, is recorded (Fl. Shangh. p. 39) from Shanghai by Debeaux.

*Youngia humilis*, Miq. (Journ. de Bot. Néerl. i. p. 106), is not a *Crepis*, but probably a *Lactuca*.]

4. **Crepis longipes,** *Hemsl.*, n. sp.

*Herba* perennis?, 2–3-pedalis, undique glabra vel cito glabrescens, caulibus viridibus striatis infra inflorescentiam simplicibus. *Folia* membranacea, longissime petiolata, cordato-hastata vel interdum ovata, absque petiolo usque ad 6 poll. longa, obscure lobata, simul remote calloso-denticulata, acuminata, obtusa vel rotundata, simul minute calloso-apiculata; petiolus gracilis, 4–6 poll. longus, sursum gradatim brevior. *Capitula* parva, circiter 15–20-flora, composito-corymbosa; involucri minute calyculati bracteæ circiter 8, herbaceæ, angustæ, acutæ, albo-marginatæ,

pappo breviores; receptaculum parvum. *Flores* flavi. *Achænia* rufa, fusiformia, leviter curvata, glabra, multistriolata; pappi setæ albæ, molles, uniseriatæ, patentes, minutissime barbellatæ.

HUPEH: Ichang and immediate neighbourhood (*A. Henry*!). Herb. Kew.

Characterized by the leaves being borne on long petioles, otherwise closely allied to *Crepis japonica*.

5. **Crepis prenanthoides,** *Hemsl.*, n. sp.

*Herba* biennis vel perennis, 2–3 ped. alta, glabrescens, caulibus subsimplicibus striolatis. *Folia* membranacea, petiolata, cito glabrescentia, subtus glauca, remote calloso-denticulata; radicalia longe petiolata (petiolo 6 poll. longo), hastato-cordata, 3–4 poll. longa; caulina breviter petiolata, alte pinnatifida, segmentis anguste lanceolatis, longe acuminatis. *Capitula* pauca, laxe paniculata, graciliter pedunculata, 12–15-flora; involucri calyculati bracteæ 7–8, leviter puberulæ, angustæ, obtusæ, coloratæ, pappo paullo breviores; receptaculum nudum. *Achænia* fusco-atra, nitida, fusiformia, pappum æquantia, apicem versus albida, multistriata, minutissime puberula, sursum attenuata, estriata; pappus albus, mollis, diu persistens.

SZECHUEN: Chung city (*Faber*!). Herb. Kew.

The limits of the genera *Crepis*, *Lactuca*, and *Prenanthes* are so badly defined, and perhaps indefinable, that it is difficult to determine in which to place some species; but the erostrate achenes and soft, white, apparently persistent pappus point to *Crepis* for the present species, though the smooth tapering tip of the achenes is the next thing to a beak.

6. **Crepis Turczaninowii,** *C. A. Mey.*; *Turcz. Fl. Baical.-Dahur.* ii. 2. p. 162; *Franchet, Pl. David.* p. 185; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473.

CHIHLI: Peking (ex *Maximowicz*).

Mongolia and Mandshuria.

1. **Hieracium umbellatum,** *Linn. Sp. Pl.* ed. 1, p. 804; *DC. Prodr.* vii. p. 224; *Hook. f. Fl. Brit. Ind.* iii. p. 400; *Hance in Journ. Bot.* 1879, p. 12; *Franchet, Pl. David.* p. 186.

CHIHLI: near Peking (*Mœllendorff*, hb. *Hance*!), Jehol (*David* ex *Franchet*); HUPEH: Patung district (*A. Henry*, 936, 1035,

and 5056 ?); COREAN ARCHIPELAGO: Bate group (*Oldham*, 463 ?). Mus. Brit.; Herb. Kew.

Europe and North Africa to Japan, and in North America. The Chinese specimens in the Kew Herbarium, here doubtfully referred to this species, are not typical *H. umbellatum*, and may belong to *H. crocatum*, Fries.

1. **Hypochœris grandiflora,** *Ledeb. Fl. Alt.* iv. p. 164; *Franch. et Savat. Enum. Pl. Jap.* i. p. 267; *Franchet, Pl. David.* p. 186.

Achyrophorus grandiflorus, *Ledeb. Fl. Ross.* ii. p. 777; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473; *Baker et S. Moore, in Journ. Linn. Soc.* xvii. p. 383.

Achyrophorus aurantiacus, *DC. Prodr.* vii. p. 93.

SHINGKING: Moukden to Yaloo river (*Webster*!), Talienhwan (*Swinhoe*!), Chienshan (*Ross*!). Mus. Brit.; Herb. Kew.

Altai and Dahuria eastward to Japan.

1. **Taraxacum officinale,** *Web. in Wiggers, Prim. Fl. Holst.* p. 56; *Ledeb. Fl. Ross.* ii. p. 812; *Hook. f. Fl. Brit. Ind.* iii. p. 401; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 383; *Debeaux, Fl. Shangh.* p. 39.

Taraxacum Dens-leonis, *Desf. Fl. Atl.* ii. p. 228; *DC. Prodr.* vii. p. 145; *Benth. Fl. Hongk.* p. 192.

Taraxacum ceratophorum, *DC. Prodr.* vii. p. 146; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473.

Taraxacum corniculatum, *DC. Prodr.* vii. p. 146; *Franchet, Pl. David.* p. 187.

Leontodon Taraxacum, *Linn. Sp. Pl.* ed. 1, p. 798; *Bretschn. Early Res.* p. 160.

Taraxacum sinense, *DC. Prodr.* vii. p. 150; *Bretschn. Early Res.* p. 160.

Leontodon sinense, *Lour. Fl. Cochinch.* p. 479.

CHIHLI, SHINGKING, and COREA to SZECHUEN, HONGKONG, and FORMOSA, common, at least in the northern provinces, and equally as variable as in Europe (*Bretschneider*! *Ross*! *A. Henry*! *Oldham*! *Champion*! and others). Mus. Brit.; Herb. Kew.

Generally spread in both northern and southern cold and temperate regions, though doubtfully native in the southern hemisphere.

FABERIA, *Hemsl.*

(Genus novum inter Troximonem et Taraxacum.)

Capitula homogama, liguliflora. Involucrum campanulatum, bracteis herbaceis, intimis uniseriatis coloratis pappum æquantibus, exterioribus pluriseriatis appressis gradatim minoribus, extimis squamiformibus. Receptaculum planum vel leviter convexum, epaleaceum. Corollæ ligulatæ apice 5-dentatæ. Antheræ........ Styli rami tenues, elongati, papillosi. Achænia fusiformia, striata, vel leviter costata, minute hispidula, erostrata. Pappi setæ fuscæ, uniseriatæ, simplices, basin versus barbellatæ, inæquales. Herba scapigera. Folia lyrato-pinnatifida. Scapi oligocephali. Capitula majuscula.

1. **Faberia sinensis**, *Hemsl.*, n. sp.; *Hook. Ic. Pl.* t. 1815, ined.

*Herba* perennis, glabrescens. *Scapus* nudus, 2–3 ped. altus, supra medium laxe pauciramosus, ramulis paucisquamosis monocephalis. *Folia* petiolata papyracea, discoloria, subtus præcipue secus costam pilis longis multicellulatis coloratis instructa, 8–20 poll. longa, insigniter lyrato-pinnatifida, lobo terminali ovata longissime acuminata, 5–10 poll. longo, obscure paucilobato simul remote calloso-denticulato, lobis lateralibus parvis (maximis semipoll. longis vel latis) dissitis oblique rotundatis calloso-apiculatis deorsum gradatim minoribus. *Capitula* graciliter pedunculata, fructifera circiter 1 poll. diametro; involucri bracteæ exteriores puberulæ ciliolatæ ovatæ, vix acutæ, interiores lineares fere glabræ, apice ciliolatæ. *Achænia* fusco-atra; pappus patens.

SZECHUEN: Mount Omei, 4000 to 4500 feet (*Faber*!). Herb. Kew.

In habit and in the coarse hairs on the leaves, as well as in the involucre, this resembles some of the Mutisiaceæ more than the Cichoriaceæ.

The genus is named after the discoverer, the Rev. Ernst Faber, a German missionary, who has collected in various parts of China, and whose collection from Mount Omei, whence the present plant was obtained, contains a considerable number of novelties.

Schultz-Bipontinus proposed a genus *Fabera*, but he had been anticipated by D. Don's *Seriola*, now reduced to *Hypochæris*.

1. **Lactuca brevirostris**, *Champ. in Hook. Kew Journ. Bot.* iv. p. 237; *Benth. Fl. Hongk.* p. 192; *Hook. f. Fl. Brit. Ind.* iii. p. 405.

Lactuca squarrosa, *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 189; *Maxim. in Mél. Biol.* ix. p. 353; *Franchet, Pl. David.* p. 187.

Prenanthes laciniata, *Houtt. Handl. Pl. Kruidk.* x. p. 381, t. 66. f. 1.

Lactuca amurensis, *Regel, Ind. Sem. Hort. Petrop.* 1857, p. 42; *Maxim. Prim. Fl. Amur.* pp. 178 et 473; *Debeaux, Fl. Tchef.* p. 89.

Sonchus floridanus, *Lour. Fl. Cochinch.* p. 480? ; *Bretschn. Early Res.* p. 160; *Henriques in Bolet. Soc. Brot.* iii. p. 148?

Var. *foliis laciniatis.*

CHIHLI: near Peking (*Bretschneider*! *Hancock*!); SHING-KING: Kaichow to Kinchow (*Ross*!); HUPEH: Nanto and mountains to the northward (*A. Henry*!). Mus. Brit.; Herb. Kew.

Mandshuria and Japan.

Var. *foliis indivisis.*

SHANTUNG: Chefoo (*Forbes*!); CHEKIANG: Ningpo (*Faber*!); FORMOSA: north-east (*Wilford*!), Tamsui (*Oldham*, 282!); HUPEH: Ichang, Patung, Nanto and neighbourhood (*A. Henry*!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Champion*!). Mus. Brit.; Herb. Kew.

North India, Japan, and the Philippine Islands.

2. **Lactuca debilis**, *Maxim. in Mél. Biol.* ix. p. 365; *S. Moore in Journ. Bot.* 1878, p. 138; *Maxim. in Bull. Soc. Nat. Mosc.* 1879, p. 29.

Ixeris debilis, *A. Gray, Bot. Jap. in Mem. Amer. Acad.* n. s. vi. p. 397; *Benth. Fl. Hongk.* p. 193; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 191; *Debeaux, Fl. Shangh.* p. 39.

Youngia debilis, *DC. Prodr.* vii. p. 194.

Prenanthes debilis, *Thunb. Fl. Jap.* p. 300.

KIANGSU: Shanghai (*Maingay*! *Faber*! *Perry*!); CHEKIANG: Ningpo (*Oldham*!); FORMOSA: Tamsui (*Oldham*, 278!); KWANG-TUNG (*Tate*!); HONGKONG (*Hance*, 780! 794!); COREA: Port Chusan (*Wilford*, 909!); LUCHU ARCHIPELAGO (*Wright*). Mus. Brit.; Herb. Kew.

Japan.

3. **Lactuca denticulata**, *Maxim. in Mél. Biol.* ix. p. 359 (varietates α. typica *et* β. sonchifolia); *Franchet, Pl. David.* p. 188.

Prenanthes denticulata, *Houtt. Handl. Pl. Kruidk.* x. p. 385, t. 66. f. 4.

Youngia dentata, *DC. Prodr.* vii. p. 193, excl. syn.; *Thunb.* ex *Maxim.*

*in Mél. Biol.* ix. p. 359; *Maxim. Prim. Fl. Amur.* pp. 181 et 473 (varietates *a.* genuina *et β.* chinensis).

Youngia hastata, *DC. Prodr.* vii. p. 194.

Prenanthes hastata, *Thunb. Fl. Jap.* p. 301.

Youngia chrysantha, *Maxim. Prim. Fl. Amur.* p. 181.

Ixeris ramosissima, *A. Gray, Bot. Jap. in Mem. Amer. Acad.* n. s. vi. p. 397; *Benth. Fl. Hongk.* p. 193; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 190; *Hance in Journ. Linn. Soc.* xiii. p. 108.

Brachyramphus ramosissimus, *Benth. in Hook. Lond. Journ. Bot.* i. p. 489.

Brachyramphus sinicus, *Miq. in Journ. de Bot. Néerl.* i. p. 105?

Dubyæa ramosissima, *Hance in Walp. Ann.* ii. p. 1028.

Prenanthes sonchifolia, *Bunge, Enum. Pl. Chin. Bor.* p. 40, nec *Willd.*, ex *Maxim. in Mél. Biol.* ix. p. 360.

Youngia sonchifolia, *Maxim. Prim. Fl. Amur.* p. 180; *Hance in Ann. Sc. Nat.* 5<sup>me</sup> série, v. p. 223.

Youngia serotina, *Maxim. Prim. Fl. Amur.* p. 180.

Lactuca sonchifolia, *Debeaux, Fl. Tchef.* p. 90.

Lactuca ramosissima, *Baker et S. Moore, in Journ. Linn. Soc.* xvii. p. 384.

CHIHLI, SHINGKING, and COREA to HUPEH, KWANGTUNG, and FORMOSA (*Bunge*! *Bretschneider*! *Ross*! *A. Henry*! *Hance*! *Wilford*! and numerous other collectors). Mus. Brit.; Herb. Kew.

Mandshuria and Japan.

An exceedingly variable plant, the extreme forms of which are so different that no person would imagine them referable to the same species without seeing the intermediate ones. There is a very large series of specimens in the Kew Herbarium, and one might say nearly as many varieties. It is apparently equally common and variable in China and Japan.

Var.? **flexuosa**, *Hemsl.*; caulibus simplicibus stramineis nitidis, foliis pertenuibus rotundatis alato-petiolatis, capitulis in axillis foliorum fasciculatis.

SHANTUNG: Chefoo (*Forbes*!). Herb. Kew.

4. **Lactuca** (§ **Scariola**) **elata**, *Hemsl.*, n. sp.

*Herba* elata, saltem 6–7-pedalis, fere glabra, caulibus solidis striolatis, infra inflorescentiam simplicibus. *Folia* (radicalia desunt) papyracea vel membranacea, inferiora alato-petiolata, ovata vel lanceolata, cum petiolo usque ad 6 poll. longa, calloso-dentata, acuta, parcissime puberula, subtus glaucescentia. *Capi-*

*tula* mediocria, circiter 10-flora, paniculata; panicula angusta, 2 ped. longa, ramulis pedunculisque fere filiformibus, pedunculis bracteis minutis instructis; involucri bracteæ glaberrimæ, basi vix incrassatæ, interiores longiores sæpius 5, obtusæ, apice coloratæ, pappum æquantes; receptaculum nudum. *Flores* lutei. *Achænia* ovalia, compressa, fusca, rubro-maculata, utrinque 3-costata; pappi setæ molles, albæ, minutissime barbellatæ.

CHEKIANG: mountains of Ningpo (*Faber*!); HUPEH: Nanto and mountains to the northward (*A. Henry*!). Herb. Kew.

In foliage this strongly resembles *L. triangulata*, Maxim., but the leaves are not stem-clasping, and the flower-heads and branches of the inflorescence are much slenderer; and the achenes of *L. triangulata* are black and only one-ribbed on each side.

5. **Lactuca formosana**, *Maxim. in Mél. Biol.* ix. p. 353; *S. Moore in Journ. Bot.* 1875, p. 231.

CHEKIANG: Ningpo (*Oldham*, 59!); KIANGSI: Kiukiang (*Shearer*!); FORMOSA: Tamsui (*Oldham*, 279!). Mus. Brit; Herb. Kew.

Var.? caulibus foliisque glabris glaucis capitulis minoribus.

HUPEH: Ichang, Patung and immediate neighbourhood (*A. Henry*!). Herb. Kew.

There are other varieties of what we take to be this species from Chungking (*Faber*, 402) and Ichang (*A. Henry*, 4100); but we cannot refer them here without doubt.

6. **Lactuca graciliflora**, *DC. Prodr.* vii. p. 139; *Hook. f. Fl. Brit. Ind.* iii. p. 406.

HUPEH: Patung district (*A. Henry*, 2396, 2544?). Herb. Kew.

The Chinese specimens are doubtingly referred to this species, which is a native of India.

7. **Lactuca gracilis**, *DC. Prodr.* vii. p. 140; *Clarke, Comp. Ind.* p. 271; *Hook. f. Fl. Brit. Ind.* iii. p. 410.

HUPEH: Patung, Nanto and mountains to the northward (*A. Henry*, 1879, 3935!); SZECHUEN: Mount Omei, at 3000 feet (*Faber*!). Herb. Kew.

Himalaya and Khasia mountains.

8. **Lactuca polycephala,** *Clarke, Comp. Ind.* p. 272; *Hook. f. Fl. Brit. Ind.* iii. p. 410; *Franchet, Pl. David.* p. 188; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 8.

Ixeris polycephala, *Cass. in Dict. Sc. Nat.* xxiv. p. 50; *DC. Prodr.* vii. p. 151.

Ixeris fontinalis, *DC. Prodr.* vii. p. 151.

CHEKIANG: Ningpo (*Savatier* ex *Franchet* in litt.); SHENSI (*David* ex *Franchet*); KANSUH (ex *Kanitz*).

Afghanistan, Northern India, and Birma.

Possibly the Chinese specimens referred to this species by Franchet and Kanitz belong to the same species as those we have identified with *L. gracilis*, DC.

9. **Lactuca Raddeana,** *Maxim. in Mél. Biol.* ix. p. 355.

Lactuca amurensis, *Herder, Pl. Radd.* iii. 4. p. 29, nec *Regel,* quoad pl. Wilfordianam, ex *Maxim.*

COREA: Port Chusan (*Wilford,* 915!). Herb. Kew.

Mandshuria.

10. **Lactuca repens,** *Maxim. in Mél. Biol.* ix. p. 364, et *in Bull. Soc. Nat. Mosc.* 1879, p. 29.

Ixeris repens, *A. Gray, Bot. Jap. in Mem. Amer. Acad.* n. s. vi. p. 397; *Benth. Fl. Hongk.* p. 194; *Debeaux, Fl. Tchef.* p. 91.

Chorisis repens, *DC. Prodr.* vii. p. 178.

Nabalus repens, *Ledeb. Fl. Ross.* ii. p. 84; *F. Schmidt, Fl. Sachal.* p. 153.

Prenanthes repens, *Linn. Amœn. Acad.* ii. p. 360, t. 4. f. 23.

SHANTUNG: Chefoo (*Everard*!); FOKIEN: Amoy (*Perry*!); KWANGTUNG: Pakhoi (*Playfair*!); HONGKONG (*Harland*!); COREA: Port Chusan (*Wilford*!); LUCHU ARCHIPELAGO (*Wright*!). Mus. Brit.; Herb. Kew.

Mandshuria, Japan, Sachalin, and Kamtschatka.

11. **Lactuca Roborowskii,** *Maxim. in Mél. Biol.* xi. p. 803.

KANSUH (*Przewalski* ex *Maximowicz*).

12. **Lactuca Scariola,** *Linn. Sp. Pl.* ed. 2, p. 1119; *DC. Prodr.* vii. p. 137, var. sativa; *Bischoff, Beitr. zur Fl. Deutschl.* p. 190; *Hook. f. Fl. Brit. Ind.* iii. p. 404; *Franchet, Pl. David.* p. 187; *Maxim. in Mél. Biol.* ix. p. 352; *Bretschn. Study Chin. Bot. Works,* p. 17; *A. DC. Orig. Pl. Cult.* ed. 3, p. 75.

Lactuca sativa, *Linn. Sp. Pl.* ed. 1, p. 795; *Bretschn. Early Res.* p. 160.

There are cultivated specimens of the lettuce from various parts of China in the Kew Herbarium.

13. **Lactuca sibirica,** *Maxim. in Mél. Biol.* ix. p. 357; *Franchet, Pl. David.* p. 187.

Mulgedium sibiricum, *Less. Syn. Comp.* p. 142; *DC. Prodr.* vii. p. 249; *Ledeb. Fl. Ross.* ii. p. 843.

Sonchus sibiricus, *Linn. Sp. Pl.* ed. 1, p. 795; *Bretschn. Early Res.* p. 160.

CHIHLI: Jehol and near Peking (*David* ex *Franchet*); SHINGKING: Laoyehling and other hills near Moukden (*James*!); COREA: Gensan (*Perry*!). Herb. Kew.

North-eastern Europe to Mandshuria.

14. **Lactuca sororia,** *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 189; *Maxim. in Mél. Biol.* ix. p. 358.

FORMOSA: Kelung (*Ford*!); HUPEH: Ichang and immediate neighbourhood (*A. Henry*!). Herb. Kew.

Japan.

15. **Lactuca stolonifera,** *Maxim. in Mél. Biol.* ix. p. 364; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 231.

SHANTUNG: Chefoo (*Fauvel* ex *Franchet*); COREAN ARCHIPELAGO: Port Hamilton (*Wilford*!). Mus. Brit.; Herb. Kew.

Japan.

16. **Lactuca tatarica,** *C. A. Mey. Enum. Pl. Cauc.* p. 56; *Maxim. in Mél. Biol.* ix. p. 357; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 9; *Franchet, Pl. David.* p. 188; *Hook. f. Fl. Brit. Ind.* iii. p. 406.

Mulgedium tataricum, *DC. Prodr.* vii. p. 248; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473.

Sonchus tataricus, *Linn. Mant.* p. 572.

Sonchus lactucoides, *Bunge, Enum. Pl. Chin. Bor.* p. 40.

CHIHLI: near Peking (*Bunge*! *Hancock*! *Bretschneider*!), Jehol (*David* ex *Franchet*); KANSUH (ex *Kanitz*). Herb. Kew.

Southern Russia to North India and Mandshuria.

17. **Lactuca Thunbergiana,** *Maxim. in Mél. Biol.* ix. p. 361.

Ixeris Thunbergiana, *A. Gray, Bot. Jap. in Mem. Amer. Acad.* n. s. vi. p. 397.

Prenanthes dentata, *Thunb. Fl. Jap.* p. 301.

Lactuca Oldhami, *Maxim. in Mél. Biol.* ix. p. 363.

Ixeris Gregorii, *Hance in Ann. Sc. Nat.* 5me série, v. p. 222.

FOKIEN (*Gregory*, hb. *Hance*, 1233!); FORMOSA: Tamsui (*Oldham*, 290!), north-east (*Wilford*, 546!). Mus. Brit.; Herb. Kew.

Japan and the Philippine Islands.

With a larger number of specimens before him, Mr. Maximowicz would probably agree to the reduction of his *L. Oldhami.*

18. **Lactuca** (§ **Ixeris**) **triflora**, *Hemsl.*, n. sp.

*Herba* glaberrima, caulibus crassis cavis striatis. *Folia* (caulina tantum adsunt) papyracea, sessilia, lyrato-pinnatifida (triloba, lobo terminali maximo triangulari, lobis lateralibus multo minoribus oblongis), 6–8 poll. longa, basi biauriculata, semiamplexicaulia, minutissime remoteque calloso-denticulata, subtus glaucescentia. *Capitula* sæpissime triflora, numerosissima, laxe paniculata, graciliter pedunculata. *Involucri bracteæ* herbaceæ, coloratæ?, angustæ, obtusæ, pappum subæquantes. *Achænia* (matura non visa) erostrata; pappi setæ albæ, numerosæ, barbellatæ.

SZECHUEN: Mount Omei, at 7000 feet (*Faber*!). Herb. Kew.

This is nearest *L. sororia*, which has petiolate, usually 5-lobed, toothed leaves, and a narrow panicle of very slender flower-heads.

19. **Lactuca versicolor**, *Schultz-Bip. ex Herder, Pl. Radd.* iii. 4. p. 29; *Kanitz, Bot. Res. Szech. Centr. As. Exped.* p. 9; *Maxim. in Mél. Biol.* ix. p. 362; *Franchet in Mém. Soc. Sc. Nat. Cherbourg*, xxiv. p. 231; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 383.

Ixeris versicolor, *DC. Prodr.* vii. p. 151; *Benth. Fl. Hongk.* p. 193; *Miq. in Ann. Mus. Bot. Lugd.-Bat.* ii. p. 191; *Ledeb. Fl. Ros.* ii. p. 817.

Prenanthes versicolor, *Fisch. ex Bunge, Enum. Pl. Chin. Bor.* p. 40.

Prenanthes chinensis, *Thunb. Fl. Jap.* p. 301.

Barkhausia tenella, *Benth. in Hook. Lond. Journ. Bot.* i. p. 488; *Walp. Rep.* ii. p. 697.

Youngia chinensis, *DC. Prodr.* vii. p. 194.

CHIHLI, SHINGKING, and COREA to SZECHUEN, KWANGTUNG, and FORMOSA in almost every collection! Mus. Brit.; Herb. Kew.

Dahuria eastward to Japan.

20. **Lactuca**, sp. n. *L. stoloniferæ* aff.; gracillima, longe stolonifera, foliis petiolatis, cordato-rotundatis, paucilobatis simul calloso-denticulatis.

HUPEH: Patung district (*A. Henry*!). Herb. Kew.

Apparently a very distinct undescribed species; but as the specimens are exceedingly young and otherwise imperfect, it is impossible to characterize it.

21. **Lactuca**, sp. n.? Aff. *L. triangulatæ*, differt achæniis atris utrinque 5–6-costatis.

SHINGKING: without locality (*Ross*!). Herb. Kew.

This has a long narrow inflorescence, and is probably an undescribed species; but the specimen bears no perfect leaves.

1. **Prenanthes Faberii**, *Hemsl.*, n. sp.

*Herba* undique glabra vel cito glabrescens, caulibus crassiusculis. *Folia* caulina petiolata, papyracea, discoloria, deltoideo-cordiformia, usque ad 6 poll. diametro, obscure paucilobata, simul remote calloso-denticulata, lobis acutiusculis vel acuminatis, venis palmato-radiatis subtus sat conspicuis; petiolus gracilis, 1–2 poll. longus. *Capitula* sæpissime 5-flora, interdum usque ad 10-flora, anguste racemoso-paniculata, breviter pedunculata; involucri bracteæ herbaceæ, latæ, obtusæ, extimæ breves, intimæ sæpius 5 pappo breviores; receptaculum nudum. *Florum* color? *Achænia* (immatura tantum visa) brevia, truncata, glabra; pappi setæ numerosissimæ, fulvæ, minute barbellatæ.

SZECHUEN: Mount Omei, at 10,000 feet (*Faber*!). Herb. Kew.

This differs from *P. Tatarinowii*, its nearest ally, in being glabrous, in the thicker flower-heads, in short dense racemes, forming a long narrow panicle.

2. **Prenanthes ochroleuca**, *Hemsl.*

Nabalus ochroleucus, *Maxim. in Bull. Acad. Pétersb.* xv. 1871, p. 376; *Franch. et Savat. Enum. Pl. Jap.* i. p. 274.

COREA: Chemulpo (*Carles*!). Herb. Kew.

Japan.

3. **Prenanthes Tatarinowii**, *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 474 in adnot., et *in Mél. Biol.* ix. p. 365; *Franchet, Pl. David.* p. 189.

CHIHLI: Peking (ex *Maximowicz*), Jehol (*David*, 2172, ex *Franchet*); HUPEH: Patung district (*A. Henry*!). Herb. Kew.
Also in Mandshuria.

1. **Sonchus arvensis,** *Linn. Sp. Pl.* ed. 1, p. 793; *DC. Prodr.* vii. p. 187; *Boiss. Fl. Or.* iii. p. 798; *Herder in Pl. Radd.* iii. 4. p. 46, var. uliginosa; *Hook. f. Fl. Brit. Ind.* iii. p. 414.

Sonchus uliginosus, *Bieberst. Fl. Taur. Caucas.* iii. p. 525; *DC. Prodr.* vii. p. 186; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473; *Franchet, Pl. David.* p. 189.

Sonchus brachyotus, *DC. Prodr.* vii. p. 186; *Debeaux, Fl. Tchef.* p. 91; *Fl. Tients.* p. 27, et *Fl. Shangh.* p. 39; *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 231.

CHIHLI to HUPEH, HONGKONG, and FORMOSA, apparently common (*Bretschneider*! *Oldham*! *A. Henry*! and others). Mus. Brit.; Herb. Kew.

Generally dispersed in temperate and subtropical regions, both north and south, but it is impossible to define the area to which it is even probably indigenous.

2. **Sonchus asper,** *Vill. Fl. Dauph.* iii. p. 158; *Hook. f. Fl. Brit. Ind.* iii. p. 414; *Franchet, Pl. David.* p. 189.

SHENSI (*David* ex *Franchet*).

This is, perhaps, nearly as widely dispersed as the foregoing and *S. oleraceus,* yet we have seen no Chinese specimens. It is believed to be indigenous in New Zealand and Australia as well as in the northern hemisphere.

3. **Sonchus lactucoides,** *Bunge, Enum. Pl. Chin. Bor.* p. 40; *DC. Prodr.* vii. p. 189.

CHIHLI: near Kantai (*Bunge*!), near Peking (*Swinhoe,* hb. *Hance,* 6534!). Mus. Brit.; Herb. Kew.

4. **Sonchus oleraceus,** *Linn. Sp. Pl.* ed. 1, p. 794; *DC. Prodr.* vii. p. 185; *Benth. Fl. Hongk.* p. 194; *Debeaux, Fl. Tchef.* p. 91; *Hook. f. Fl. Brit. Ind.* iii. p. 414.

Sonchus ciliatus, *Lam. Fl. Franç.* ii. p. 87; *DC. Prodr.* vii. p. 185.

KIANGSU to HUPEH, HONGKONG, and FORMOSA (*Maingay*! *Oldham*! *A. Henry*! *Hinds*! and others). Mus. Brit.; Herb. Kew.

Now equally as widely dispersed as *arvensis,* and it is as uncertain where it is really indigenous.

1. **Launæa pinnatifida,** *Cass. in Dict. Sc. Nat.* xxiii. p. 85; *Hook. f. Fl. Brit. Ind.* iii. p. 416.

Microrhynchus sarmentosus, *DC. Prodr.* vii. p. 181; *Wight, Ill.* t. 133; *Hance in Journ. Bot.* 1878, p. 12.

KWANGTUNG: sandy seashore at Paksha in the extreme south of the province (*Hance*, 13730!). Mus. Brit.

Central and Southern India, Mauritius, and East Africa.

1. **Scorzonera albicaulis,** *Bunge, Enum. Pl. Chin. Bor.* p. 40; *DC. Prodr.* vii. p. 117; *Maxim. Ind. Fl. Pek. in Prim. Fl. Amur.* p. 473.

CHIHLI: near Peking (ex *Bunge*); SHINGKING: Moukden to Yaloo river (*Ross*?); CHEKIANG: Ningpo (*Everard*?). Mus. Brit.; Herb. Kew.

There is no authenticated specimen of this in the London herbaria; but a specimen in herb. Forbes, named by Mr. Maximowicz, appears to be the same as those cited above.

2. **Scorzonera austriaca,** *Willd. Sp. Pl.* iii. p. 1498; *Ledeb. Fl. Ross.* ii. p. 792; *Baker et S. Moore in Journ. Linn. Soc.* xviii. p. 383; *Franchet, Pl. David.* p. 190, et *in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 230; *Debeaux, Fl. Tchef.* p. 87 (var. longifolia).

CHIHLI: Jehol (*David*, 1779!); SHINGKING: various localities (*Ross*!); SHANTUNG: Chefoo (ex *Debeaux*). Mus. Brit.; Herb. Kew.

Central and Eastern Europe eastward through Siberia.

3. **Scorzonera macrosperma,** *Turcz. in Fl. Baic.-Dahur.* ii. p. 149; *Ledeb. Fl. Ross.* ii. p. 795; *DC. Prodr.* vii. p. 121; *Franchet, Pl. David.* p. 190, et *in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 230; *Baker et S. Moore in Journ. Linn. Soc.* xvii. p. 383; *Debeaux, Fl. Tchef.* p. 88.

CHIHLI: near Peking (*Bullock*!), Jehol (*David* ex *Franchet*); SHINGKING: Chienshan and Jaoling (*Ross*!); SHANTUNG: Chefoo (*Perry*!); ANWHEI: Nanking (*Faber*!); HUPEH: Ichang, Nanto and immediate neighbourhood (*A. Henry*!); COREA: Port Chusan (*Wilford*, 918!); COREAN ARCHIPELAGO: Hooper Island and Port Hamilton (*Oldham*, 455!). Mus. Brit.; Herb. Kew.

Siberia and Mandshuria.

4. **Scorzonera parviflora,** *Jacq. Fl. Austr.* iv. t. 305; *DC. Prodr.* vii. p. 121; *Debeaux, Fl. Tchef.* p. 88, et *Fl. Tients.* p. 26 (var. tcheliensis); *Franchet in Mém. Soc. Sc. Nat. Cherbourg,* xxiv. p. 230.

SHANTUNG: Chefoo (ex *Debeaux & Franchet*).

Southern Russia and Siberia eastward.

5. **Scorzonera radiata,** *Fisch. in Ledeb. Fl. Alt.* iv. p. 160, et *Fl. Ross* ii. p. 793; *DC. Prodr.* vii. p. 122.

CHIHLI: near Peking (*Bunge! Bushell!*). Herb. Kew.

Ural to Mandshuria.

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## CORRECTIONS.

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33. Under *Nymphæa acutiloba* and *N. tetragona* add distribution: Siberia and North India.

36. *Dielytra spectabilis*: add G. Don, Gen. Syst. i. (1831), p. 140.

96. Fifteenth line from top: for *Lethia* read *Sethia.*

103. Under *Psilopeganum sinense*: *for* Flores albi *read* Flores flavi.

124. Fourth line from top: *for* 6 poll. *read* 6 lineas.

125. Under *Tripterygium Wilfordii* add distribution: Japan.

128. Under *Rhamnus davuricus* add reference to Baillon, Hist. Pl. vi. p. 69.

128. Ninth line from bottom: *for* xl. *read* xliv.

130. Top line: to make the same correction.

146. Sixteenth line from top: *for* p. 22 *read* p. 220.

153. Mr. Franchet sends a specimen of *Trigonella ruthenica,* showing that we were wrong in supposing his plant might be *Medicago falcata.*

158. *Tephrosia oraria,* Hance, is the same as *Millettia* no. 8.

160. *Fordia cauliflora*: Mr. Ford writes that this shrub is of erect habit.

196. *Rhynchosia? Henryi,* Hemsl., is a variety of *Dumasia villosa,* DC., a native of India, Java, Madagascar, and Natal.

211. Second line from top: *for* p. 578 *read* p. 579.

219. Add Japan under *Prunus macrophylla.*

220. *Prunus oxycarpa,* Maxim. = *P macrophylla,* Sieb. et Zucc.

229. *Kerria japonica*: Dr. A. Henry writes that he was in error respecting the fruit being edible.

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258. Sixteenth line from bottom: for *Malus microcarpa*, Torringo; Carr., read *Malus microcarpa-Torringo*, Carr.
265. *Astilbe polyandra*, Hemsl., is probably a state of *Spiræa Aruncus*.
321. *Gynostemma*? Complete specimens since received, and it is the type of a new genus, *Hemsleya chinensis*, Cogn., Hook. Ic. Pl. t. 1822, ined.
322. Under *Begonia Henryi*: for *B. Fordii* read *B. fimbristipula*.
332. *Œnanthe Thomsoni*: Dr. Henry has sent good fruiting specimens, which prove that this is a distinct new species.
338. *Aralia quinquefolia* was first so named by Planch. et Decne. in Rev. Hort. 1854, p. 164.
340. *Acanthopanax ricinifolium*: *for* Linn. *read* Seem.
402. Fourth line from bottom: for *Elephantophus* read *Elephantopus*.
411. *Aster Gerlachii*: add Ford! and Mus. Brit.
412. Sixteenth line from top: for *Meyendorfii* read *Meyendorffii*, and *for* p. 81 *read* p. 86.
488. *Scorzonera*: Maximowicz's recent monograph of the species of Eastern Asia (Mél. Biol. xii. pp. 731–741) was overlooked until it was too late. He reduces *S. macrosperma*, Ledeb., to *S. albicaulis*, Bunge, and he also records the N. Indian and N. Asian *S. divaricata* from Shansi.

## DESCRIPTION OF THE PLATES.

### Plate I.

A map of China and Corea, with the Islands included in the 'Index Floræ Sinensis.'

### Plate II.

A. *Polygala hongkongensis*, Hemsl.

Fig. 1. A branch, natural size.
2. A flower, enlarged.
3. Crest of the keel, enlarged.
4. Stamens and lateral petals, enlarged.
5. A stamen, enlarged.
6. Pistil, enlarged.

B. *Polygala Mariesii*, Hemsl.

Fig. 7. A branch, natural size.
8. A flower, enlarged.
9. Stamens, enlarged.

PLATE II. (*continued*).

Fig. 10. Portion of stamen, more enlarged.
11. Pistil, enlarged.
12. Capsule, slightly enlarged.
13. Section of the same, showing the seeds more enlarged.

PLATE III.

*Psilopeganum sinense*, Hemsl.

Fig. 1. Portion of a plant, natural size.
2. Portion of a leaf, enlarged.
3. A flower, enlarged.
4. Pistil, enlarged.
5. Fruit, enlarged.
6. Section of the same, enlarged.
7. A seed, enlarged.
8. Section of the same, enlarged.

PLATE IV.

*Fordia cauliflora*, Hemsl.

Fig. 1. A leaf and small portion of the stem, natural size.
2. Flower-spike bearing an immature pod, natural size.
3. A flower, natural size.
4. The same, enlarged.
5. Standard, enlarged.
6. Stamens and pistil, enlarged.
7. Pistil, enlarged.
8. Section of the same, enlarged.
9. Seed, natural size.

PLATE V.

*Gleditschia australis*, Hemsl.

Fig. 1. A branched spine from the stem, natural size.
2. A flowering branch, natural size.
3. A male flower, enlarged.
4. A stamen, enlarged.
5. A pod, natural size.

A seed is represented, unnumbered, natural size, and a section of the same enlarged.

PLATE VI.

*Spiræa Henryi*, Hemsl.

Fig. 1. A flowering branch, natural size.
2. A flower, much enlarged.
3. Pistil, much enlarged.

PLATE VII.

A. *Sedum filipes*, Hemsl.

Fig. 1. A flower-bud, enlarged.
2. A flower, enlarged.
3. A carpel, in section, enlarged.

PLATE VII. (*continued*).

B. *Sedum polytrichoides*, Hemsl.

Fig. 4. An old flower, enlarged.

PLATE VIII.

*Thladiantha nudiflora*, Hemsl.

Fig. 1. A flowering branch, natural size.
2. A male flower, enlarged.
3. Stamens, enlarged.
4. A female flower, enlarged.
5. Fruit, natural size.
6. A seed, natural size.

PLATE IX.

*Lonicera fuchsioides*, Hemsl.

Fig. 1. A flower, enlarged.

PLATE X.

*Nertera sinensis*, Hemsl.

Fig. 1. Tip of a branch bearing a solitary terminal flower, enlarged.
2. A flower, enlarged.
3. Fruit, in cross section, enlarged.
4 and 5. Seed in different positions, enlarged.

PLATE XI.

*Pluchea ? pteropoda*, Hemsl.

Fig. 1. A branch-tip, enlarged.
2. A female flower, enlarged.
3. A hermaphrodite flower, enlarged.
4. A stamen, enlarged.

PLATE XII.

*Leontopodium sinense*, Hemsl.

Fig. 1. A flower-head, enlarged.
2. Bracts of the involucre, enlarged.
3. A female flower, enlarged.

PLATE XIII.

*Carpesium minus*, Hemsl.

Fig. 1. A flower-head, enlarged.
2. A female flower, enlarged.
3. A hermaphrodite flower, enlarged.
4. A stamen, enlarged.

PLATE XIV.

*Ainsliæa glabra*, Hemsl.

Fig. 1. A flower-head, enlarged.
2. A female flower, enlarged.

# INDEX

TO

# GENERA AND SYNONYMS.

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*Note.*—Ordinal names are printed in small capitals, genera in Roman, and synonyms and names of plants incidentally mentioned in italics. Accepted specific names being alphabetically arranged under each genus, they are not indexed.

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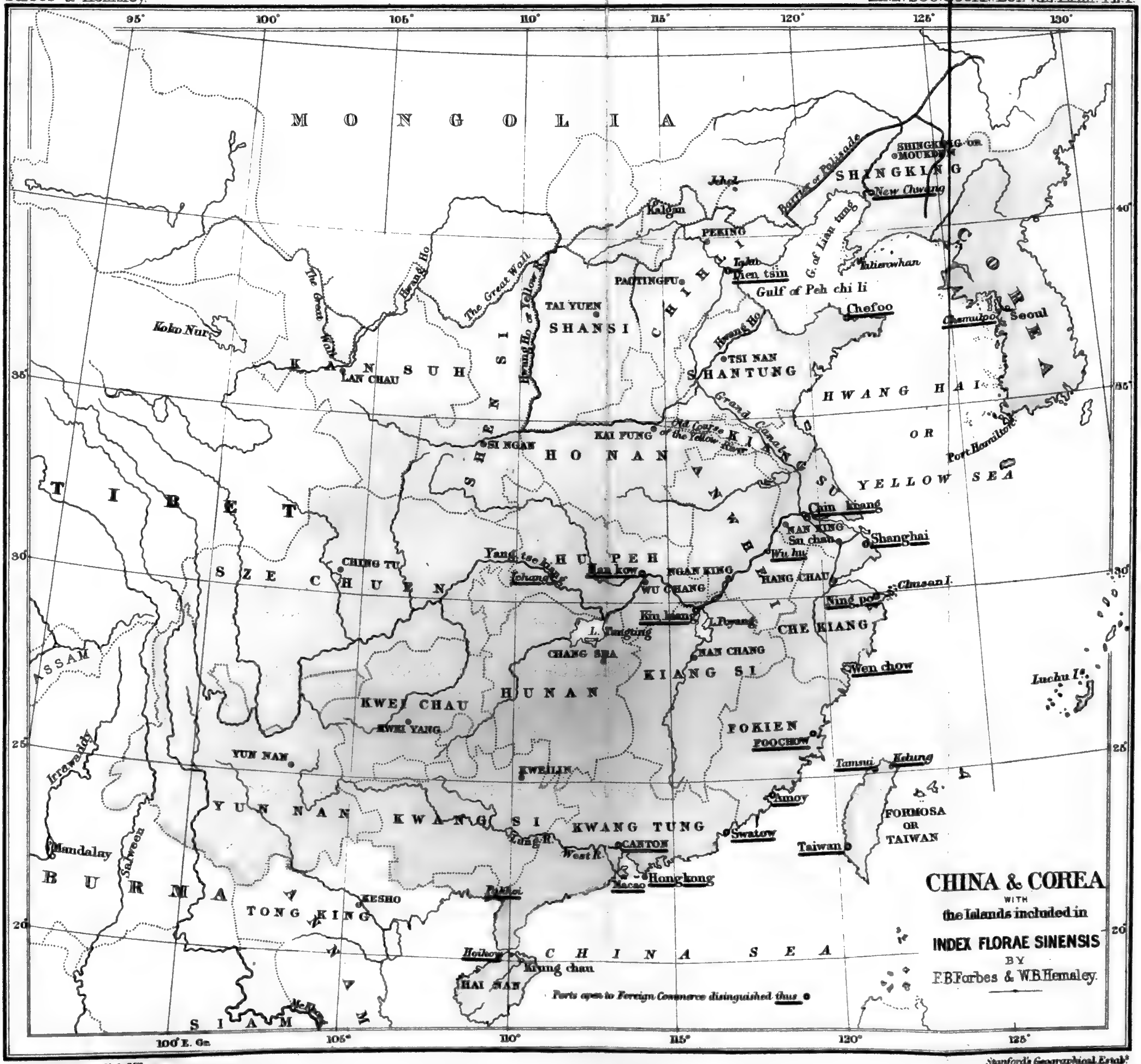
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Hwang Ho or Yellow R.
Yang tse kiang
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Koko Nur

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A. 1-6 POLYGALA HONKONGENSIS, *Hemsl.*
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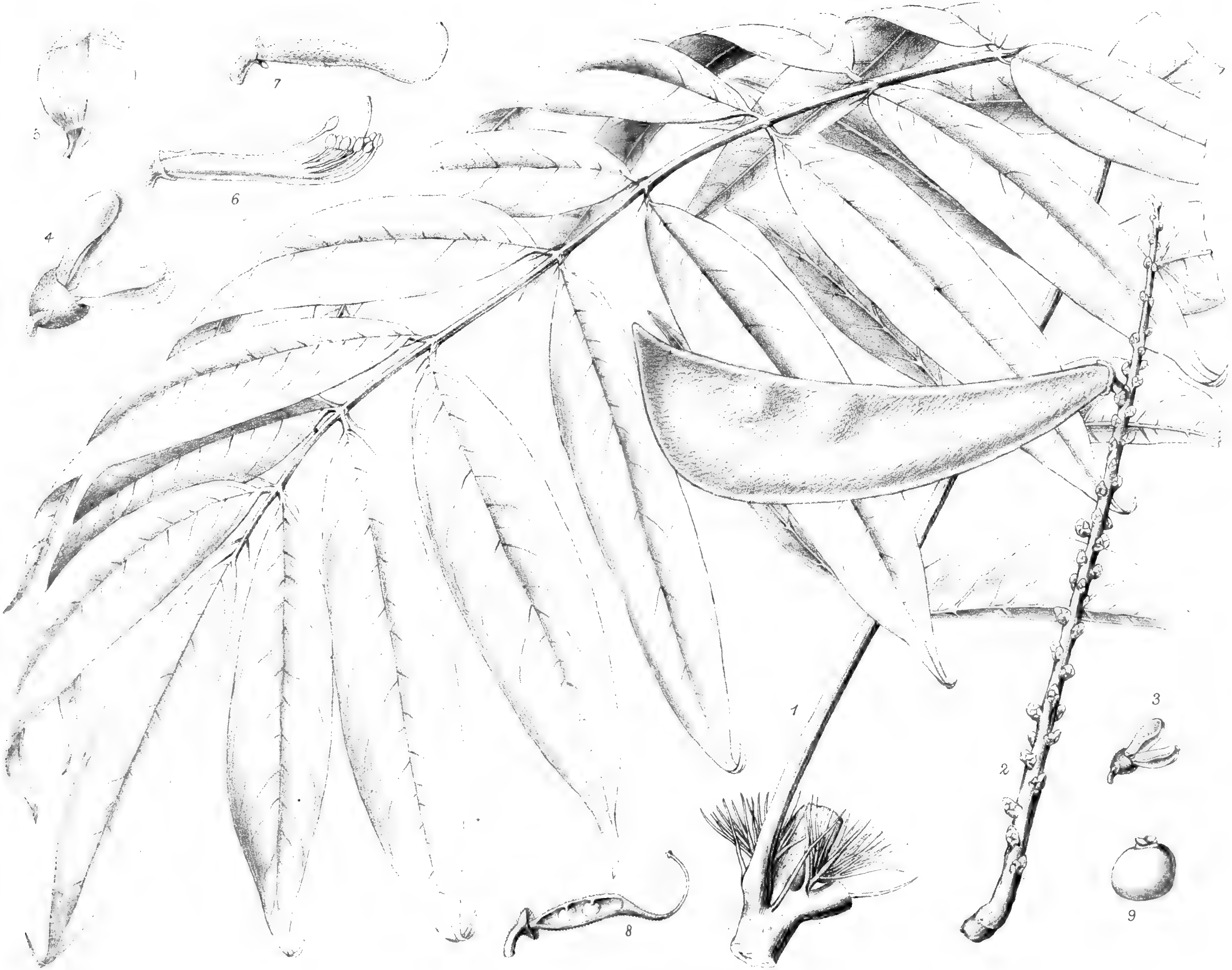


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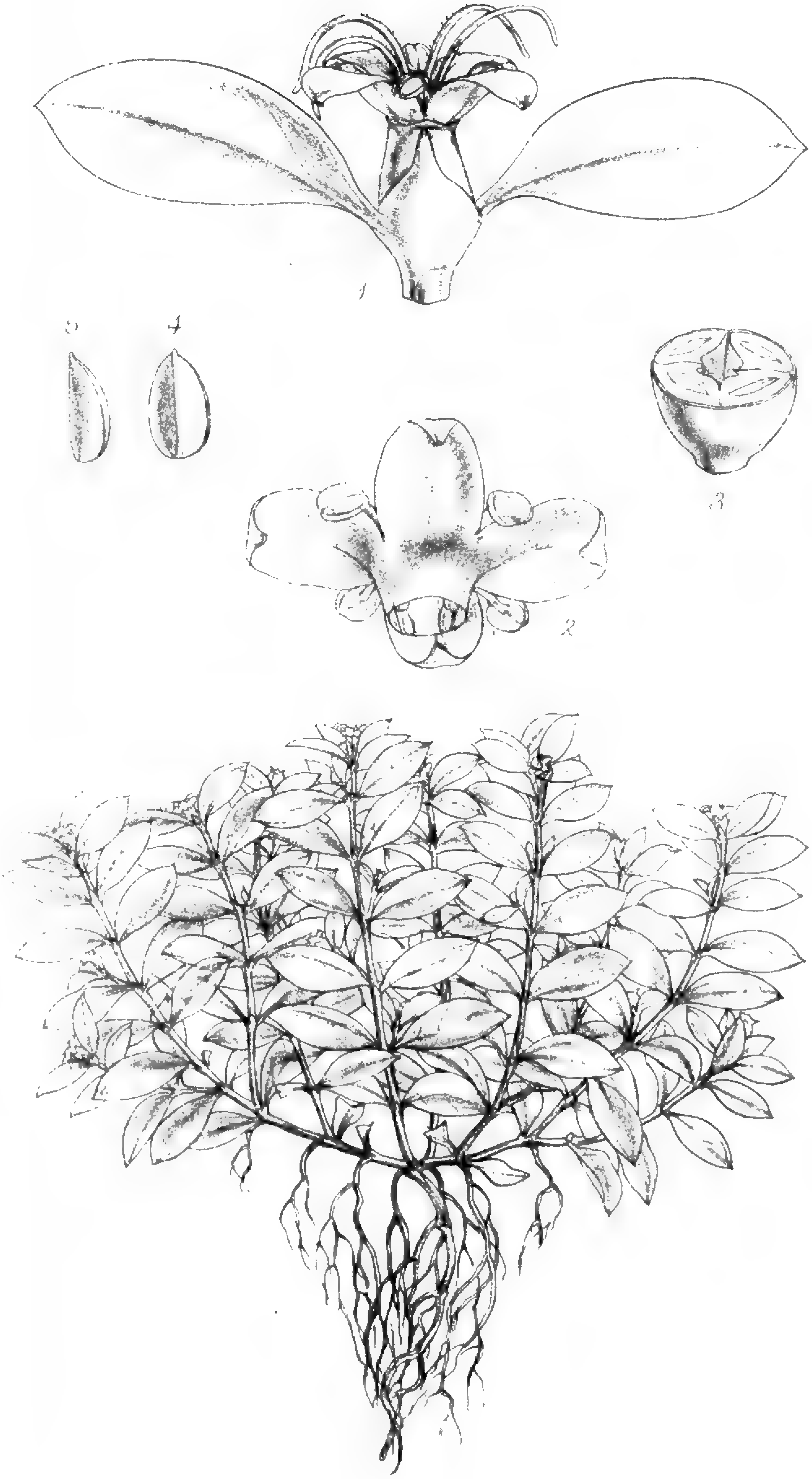


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